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|---|
| 国环评证甲字 |
| 第 **4004** 号 |

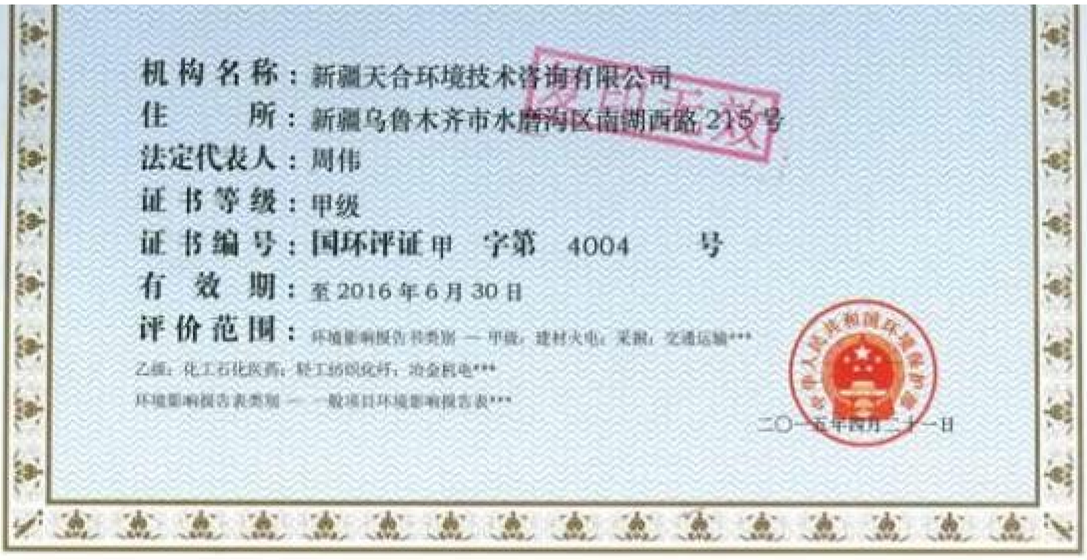
# 国投哈密能源开发有限责任公司大南湖矿区西区大南湖七号煤矿及选煤厂

# 环境影响报告书

**（建设规模：12.00Mt/a）**

新疆天合环境技术咨询有限公司

二O一五年六月 新疆 乌鲁木齐



机构名称：新疆天合环境技术咨询有限公司

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法定代表人：周伟

证书等级：甲级

证书编号：国环评证甲　字第　4004　　号

有 效 期：至 2016 年 6 月 30 日

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乙级：化工石化医药；轻工纺织化纤；冶金机电***

环境影响报告表类别 — 一般项目环境影响报告表***

二〇一五年四月二十一日

项目名称：国投哈密能源开发有限责任公司大南湖矿区西区大南湖七号煤矿及选煤厂

文件类型：环境影响报告书

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评价单位：新疆天合环境技术咨询有限公司

法定代表人：周伟

周伟

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**项目行业类别：采掘**

**委托单位：国投哈密能源开发有限责任公司**

**评价单位：新疆天合环境技术咨询有限公司**

**证书编号：国环评证甲字第 4004 号**

**法人代表：　周　伟**

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职业资格证书编号：　**0004708**

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登记类别：**采掘类环境影响评价**

**2015** 年 **06** 月 **19** 日

再 次 登 记 记 录

| 时间 | 有效期限 | 签章 |
|---|---|---|
|  | 延至　　年　　月　　日 |  |
|  | 延至　　年　　月　　日 |  |
|  | 延至　　年　　月　　日 |  |
|  | 延至　　年　　月　　日 |  |

国投煤矿建设中主斜井

国投煤矿建设中副斜井

国投煤矿建设中回风井

国投煤矿建设中工业广场

国投煤矿建设中选煤厂

国投煤矿建设煤筒仓

国投煤矿煤矸石临时堆场

国投煤矿矿井涌水沉淀池

国投煤矿建设中环矿道路

国投煤矿临近已建成电厂

国投煤矿地面砾石覆盖

国投煤矿大南湖乡公参与调查

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1.5 [illegible] 24
1.6 [illegible] 24

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2.5 [illegible] 81

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3.3 [illegible] 94

**4 [illegible]** 96

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4.2 [illegible] 112
4.3 [illegible] 118

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5.3 [illegible] 135

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6.2 [illegible] ...... 144
6.3 [illegible] ...... 159
6.4 [illegible] ...... 163

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7.2 [illegible] ...... 164
7.3 [illegible] ...... 186
7.4 [illegible] ...... 205
7.5 [illegible] ...... 210

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8.3 [illegible] ...... 218
8.4 [illegible] ...... 223

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9.3 [illegible] ...... 227
9.4 [illegible] ...... 230
9.5 [illegible] ...... 232

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10.1 [illegible] ...... 233
10.2 [illegible] ...... 233
10.3 [illegible] ...... 236

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13.3 □□□□□□□□□□□ 269

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14.2 □□□□□□□□□□□□ 272
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18.2 □□□□□□□□□□□□□□□□□ ........ 308
18.3 □□□□□□□□□□□□□□□□□□ ........ 308
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**19.□□□□ ........ 320**

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19.3 □□□□□□□□ ........ 322
19.4 □□□□□□□□ ........ 323
19.5 □□□□□□□□ ........ 333
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**20.□□□□□□□ ........ 339**

20.1 □□□□□□□□□□□ ........ 339
20.2 □□□□ ........ 340
20.3 □□□□□ ........ 351

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[illegible],[illegible],[illegible]

(3)[illegible]

[illegible],[illegible]

(4)[illegible]

[illegible]([illegible],[illegible],[illegible]

[illegible],[illegible],[illegible],[illegible],[illegible]

# 1 [illegible]

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[illegible],[illegible],[illegible],[illegible];[illegible];[illegible];[illegible],[illegible];[illegible],[illegible]

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(1) [illegible],[illegible],[illegible],[illegible],[illegible]

(2)[illegible]“[illegible]” [illegible], [illegible], [illegible]“[illegible]” [illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

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[illegible],[illegible]

(4) [illegible],[illegible],[illegible],[illegible]

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(7)[illegible], 2002.6;
(8) [illegible](2011 [illegible])[illegible], 2011 [illegible] 7 [illegible] 1 [illegible];
(9) [illegible]([illegible])[illegible], 2011.3 ;
(10)[illegible], 1998.8.29;
(11)[illegible] 1994.9;
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(13)[illegible], 1988 [illegible] 7 [illegible] 1 [illegible];
(14)[illegible], 2006 [illegible] 1 [illegible] 1 [illegible];
(15) [illegible] 253 [illegible], 1998 [illegible] 11 [illegible] 29 [illegible];
(16)[illegible] 592 [illegible], 2011 [illegible] 3 [illegible] 5 [illegible]

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(3) [illegible]2006[illegible]593 [illegible];

(4) [illegible]2006[illegible]1039 [illegible];

(5) [illegible]2006[illegible]87 [illegible] ([illegible])[illegible];

(6) [illegible] [illegible]2007[illegible]1456 [illegible];

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(4) [illegible]·[illegible], (HJ610-2011);

(5) [illegible]·[illegible], (HJ2.4-2009);

(6) [illegible]·[illegible], (HJ19-2011);

(7) [illegible]([illegible])[illegible], (HJ/T192-2011);

(8)[illegible], (HJ/T169-2004);

(9) [illegible]·[illegible], (HJ619-2011);

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(5)[illegible];

(6) [illegible];

(7)[illegible];

(8) [illegible]“[illegible]”[illegible];

(9)[illegible] “[illegible]” [illegible];

(10)[illegible] “[illegible]”[illegible];

(11)[illegible];

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(13)[illegible];

(14) [illegible];

(15) [illegible];

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(2) [illegible],[illegible], 2010 [illegible] 12 [illegible];

(3) [illegible] B [illegible], 2010 [illegible] 8 [illegible];

(4) [illegible],[illegible], 2015 [illegible] 3 [illegible];

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(7)[illegible], [illegible], 2013 [illegible] 7 [illegible];

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(9) [illegible]([illegible]2014[illegible]389 [illegible]), 2014 [illegible] 10 [illegible] 31 [illegible];

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(12)[illegible] ([illegible], 2014 [illegible] 8 [illegible]);

(13) [illegible];

(14)[illegible]“[illegible] [illegible]: [illegible]

[illegible]” ([illegible][2015]656 [illegible]);

(15)[illegible] ([illegible], 2015 [illegible] 6 [illegible])[illegible]

## 1.3 [illegible]

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#### 1.3.1.1 [illegible]

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**[illegible] 1-3-1 [illegible] (GB3095-2012) [illegible] [illegible]: μg/m3**

| [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|
| 1 | [illegible] ($SO_2$) | 1 [illegible] | 500 |
|  |  | 24 [illegible] | 150 |
| 2 | [illegible] ($NO_2$) | 1 [illegible] | 200 |
|  |  | 24 [illegible] | 80 |
| 3 | [illegible] (TSP) | 24 [illegible] | 300 |
| 4 | [illegible] ($PM_{10}$) | 24 [illegible] | 150 |
| 5 | [illegible] ($PM_{2.5}$) | 24 [illegible] | 75 |

#### 1.3.1.2 [illegible]

(1)[illegible]

[illegible](GB3838-2002) Ⅲ [illegible],[illegible] 1-3-2[illegible]

**[illegible] 1-3-2 [illegible] (GB3838-2002) III [illegible] [illegible]: mg/L , pH [illegible]**

| [illegible] | [illegible] | [illegible]Ⅲ[illegible] | [illegible] | [illegible] | [illegible]Ⅲ[illegible] |
|---|---|---|---|---|---|
| 1 | pH | 6～9 | 13 | [illegible] | ≤0.05 |
| 2 | [illegible] | ≤0.005 | 14 | [illegible] | ≤0.2 |
| 3 | [illegible] | ≤1.0 | 15 | [illegible] | 250 |
| 4 | [illegible] | ≤1.0 | 16 | [illegible] | ≤6 |
| 5 | [illegible] | ≤0.05 | 17 | [illegible] | ≤0.05 |
| 6 | [illegible] | ≤20 | 18 | [illegible] | ≥5 |
| 7 | [illegible] | ≤4 | 19 | [illegible] | ≤0.2 |
| 8 | [illegible] | ≤0.05 | 20 | [illegible] | ≤0.2 |
| 9 | [illegible] | ≤0.0001 | 21 | [illegible] | 250 |
| 10 | [illegible] | ≤1.0 | 22 | [illegible] | ≤0.2 |
| 11 | [illegible] | ≤0.005 | 23 | [illegible] | ≤10000 |
| 12 | [illegible] | ≤1.0 | | | |

(2)[illegible]

[illegible] (GB/T14848-93)Ⅲ [illegible],[illegible] 1-3-3[illegible]

**[illegible] 1-3-3 [illegible] (GB14848-93) [illegible]Ⅲ[illegible] [illegible]: mg/L , pH [illegible]**

| [illegible] | [illegible] | [illegible]Ⅲ[illegible] | [illegible] | [illegible] | [illegible]Ⅲ[illegible] |
|---|---|---|---|---|---|
| 1 | pH | 6.5-8.5 | 10 | [illegible] | ≤0.05 |
| 2 | [illegible] | ≤3.0 | 11 | [illegible] | ≤0.2 |
| 3 | [illegible] | ≤0.002 | 12 | [illegible] | ≤0.05 |
| 4 | [illegible] | ≤1.0 | 13 | [illegible] | ≤0.01 |
| 5 | [illegible] | / | 14 | [illegible] | ≤0.001 |
| 6 | [illegible] | ≤250 | 15 | [illegible] | ≤450 |
| 7 | [illegible] | ≤20 | 16 | [illegible] | ≤1000 |
| 8 | [illegible] | ≤0.05 | 17 | [illegible] | ≤3.0 |
| 9 | [illegible] | ≤0.05 | | | |

### 1.3.1.3 [illegible]

[illegible] (GB3096-2008) 2 [illegible];

[illegible] 1-3-4[illegible]

[illegible] **1-3-4** [illegible] [illegible]: **dB(A)**

| | |
|---|---|
| [illegible] | 2 |
| [illegible] | 60 |
| [illegible] | 50 |

### 1.3.1.4 [illegible]

[illegible](GB15618__1995)[illegible], [illegible] 1-3-5[illegible]

[illegible] **1-3-5** [illegible] [illegible]: **mg/kg**

| [illegible] | [illegible] | [illegible] (mg/Kg) |
|---|---|---|
| 1 | pH | >7.5 |
| 2 | $C_u$ | ≤100 |
| 3 | Zn | ≤300 |
| 4 | Pb | ≤350 |
| 5 | As | ≤20 |
| 6 | Cr | ≤250 |
| 7 | Hg | ≤1.0 |
| 8 | Cd | ≤1.0 |
| 9 | Ni | ≤60 |

## 1.3.2 [illegible]

### 1.3.2.1 [illegible]

[illegible] (GB20426-2006)[illegible],[illegible] 1-3-6[illegible]

[illegible] **1-3-6** [illegible]

| [illegible] | [illegible] | |
|---|---|---|
| | [illegible] | [illegible] |
| [illegible] | 80mg/Nm$^3$ [illegible]>98% | 80mg/Nm$^3$ [illegible]>98% |
| [illegible] 15m[illegible] | | |

[illegible] (GB20426-2006)[illegible],[illegible] 1-3-7[illegible]

**□ 1-3-7** □□□□□□□□

| □□□ | □□□ | □□□□ | |
|---|---|---|---|
| | | □□□□□□□□ | □□□□□□□□□□ |
| | | □□□□□□□ (mg/Nm3)<br>(□□□□□□□□□)<br>□) | □□□□□□□ (mg/Nm3)<br>(□□□□□□□□□□) |
| □□□ | □□□□□□□□ (1) | 1 | 1 |
| □□□□ | | — | 0.4 |

□ (1):□□□□□□□□□□□□□□□□□□□□□□□□□ 10 □□□□,□□□□□□□□□□□□□□□□□□□ 10 □□□,□□□□□□□□□□□□□□

### 1.3.2.2 □□□□□□□□

□□□□□□□□□□□□□□□□□□□□ (GB20426-2006)□□□□□□□□□□□□□,□□□□□□□□□□□□□□□□□□□ □□□□□□□□□□□ (GB/T18920-2002),□□□□□□□ 1-3-10 □ 1-3-11ō □□□□□□□□□□□□□□□□□□ □□□□□□□□□□ (GB/T18920-2002),□□ 1-3-11,□□□□□□□□□□□□□,□□□□□□□□□□□□□□□,□□□□□□□,□□□ō

**□ 1-3-10** □□□□□□□□ **□□: mg/L , pH □□□**

| □□□ | pH | □□□□ | □□□□□ CODcr) | □□□ | □□ |
|---|---|---|---|---|---|
| □□□□□□□□□ | 6-9 | 50 | 50 | 5 | 6 |

**□ 1-3-11** □□□□□□□□

| | □□ | □□ | □□<br>□□<br>□□ | □□□□ | □□□□ | □□□□ |
|---|---|---|---|---|---|---|
| 1 | pH | 6.0~9.0 | | | | |
| 2 | □/□ ≤ | 30 | | | | |
| 3 | □ | □□□□ | | | | |
| 4 | □□/NTU ≤ | 5 | 10 | 10 | 5 | 10 |
| 5 | □□□□□□ (mg/L) ≤ | 1500 | 1500 | 100 | 1000 | - |
| 6 | □□□□□□□ BOD$_5$ (mg/L) ≤ | 10 | 15 | 20 | 10 | 15 |
| 7 | □□ (mg/L) ≤ | 10 | 10 | 20 | 10 | 10 |
| 8 | □□□□□□□□ (mg/L) ≤ | 1.0 | 1.0 | 1.0 | 0.5 | 1.0 |
| 9 | □ (mg/L) ≤ | 0.3 | - | - | 0.3 | 0 |
| 10 | □ (mg/L) ≤ | 0.1 | - | - | 0.1 | 0 |
| 11 | □□□ (mg/L) ≥ | 1.0 | | | | |
| 12 | □□□ (mg/L) ≥ | □□ 30min □≥1.0,□□□□≥0.2 | | | | |
| 13 | □□□□□ (mg/L) ≤ | 3 | | | | |

### 1.3.2.3 [illegible]

[illegible] (GB12348-2008)[illegible] 2 [illegible],[illegible] 1-3-12[illegible] (GB12523-2011)[illegible],[illegible] 1-3-13[illegible]

[illegible] 1-3-12 [illegible] (GB12348-2008) [illegible]: dB (A)

| [illegible] | [illegible] | [illegible] |
|---|---|---|
| 2 [illegible] | 60 | 50 |

[illegible] 1-3-13 [illegible] [illegible]: dB (A)

| [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|
| [illegible] | [illegible] | 75 | 55 |
| [illegible] | [illegible] | 85 | [illegible] |
| [illegible] | [illegible] | 70 | 55 |
| [illegible] | [illegible] | 65 | 55 |

### 1.3.2.4 [illegible]

[illegible] [illegible] (GB5086. 1~2 1997)[illegible],[illegible] [illegible] (GB5085.3-2007)[illegible]

[illegible] (GB20426-2006)[illegible]; [illegible] (GB18599-2001)[illegible]

## 1.3.3 [illegible]

(1) [illegible] [illegible] (HJ446-2008),[illegible], 2008 [illegible] 11 [illegible] 21 [illegible];

(2)[illegible], (MT/T810-1999);

(3)[illegible], (GB/T50434-2007);

(4)[illegible], 1995 [illegible]

# 1.4 □□□□□□□□□

## 1.4.1 □□□□

### 1.4.1.1 □□□□□□

□□□□□□ 2×660MW □□□□□□□□ 2014 □ 8 □□□□□,□□□□□□□□□□,□□□□□□□□□,□□□□□□□□□□□□□□□□□,□□□□□□□□ 125~80℃□□□□□□□□□□□□□□□□□□□□□□□□□,□□□□□□□□□,□□□□□□

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□□□□□□□□□□□□□□□□□□□, □□□□□□□□□□□□□-□□□□□ (HJ2.2-2008)□□□□□□,□□□□□□□□□□,□□□□□□□□ 1-5-1 ,□□□□□□:

$$P_i = \frac{C_i}{C_{oi}} \times 100\%$$

□□: $P_i$—□ i □□□□□□□□□□□□, %;

$C_i$—□□□□□□□□□□□ i □□□□□□□□□, $mg/m^3$;

$C_{oi}$—□□□□□□□□ $mg/m^3$□

**□ 1-4-1** □□□□□□

| □□□□□ | □□□□□□□ |
|---|---|
| □□ | $P_{MAX} \geq 80\%$,□ $D_{10\%} \geq 5km$ |
| □□ | □□ |
| □□ | $P_{MAX} < 10\%$□ $D_{10\%} <$□□□□□□□□□ |

□□□□□ SCREEN3 □□□ $P_{Max}$ □ $D_{10}$ □□ 1-4-2□

**□ 1-4-2** **$P_{Max}$ □ $D_{10}$ □□**

| □□□□ | □□□ | TSP | $D_{10\%}$( TSP) |
|---|---|---|---|
| □□□ □□□ | 233 | 2.06% | 0 |
| □□□□ | | 2.06% | |

□□□ 1-4-2 □□□□, □□□□□□□□□□□ TSP , □□□□□□ 10% ,□□□□□□□□□□□□□□□□

### 1.4.1 .2 □□□□

□□□□□□□□□□□□□□□□□□□□□□□□,□□ 2.5km □□□□□

### 1.4.1.3 □□□□

□□□□□□□□□□□□ TSP□$PM_{10}$□$SO_2$□$NO_2$ ,□□□□□□□ TSP□$PM_{10}$□

## 1.4.2 □□□

### 1.4.2.1 □□□

□□□□□□□□□□□□□□□□□□□□□□□□□□□:□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ 3368.25$m^3$/d (□□3286.7$m^3$/d□□□3449.79$m^3$/d)，□□□□□□□□□，□□□□□□，□□□□□□□□□□□□□□—□□□□□□(HJ/T2.3-93)□□□□□□□□□，□□□□□□□□□□□□,□□□□□□□□□□□□□□□□□□□□□□□□□□□□□,□□,□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

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□ **1-4-3** □□□□□□□□□□□□□□□□□□

| □□□□ | □□□□□□□□□□<br>$m^3$/d | □□□□□□□□□□□□□ | □□□□□□(□□□□) | □□□□ □□□<br>(□□□□) |
|---|---|---|---|---|
| □□□□□□□□ | <10000 | □□ | □□□ | □-Ⅳ |
| □□□ | 0 | □□ | □ | Ⅲ |

(2) □□□□

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(3) □□□□

□□□□□□:  pH□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ 19 □□

## 1.4.2.2 [illegible]

[illegible] (HJ610-2011)[illegible],[illegible] 1.4-2[illegible]

[illegible],[illegible],[illegible],[illegible] III [illegible]

(1)[illegible]

[illegible] (HJ610-2011) III [illegible],[illegible]

[illegible] I [illegible]:[illegible],[illegible]

① [illegible]

[illegible], [illegible] 0.85~33.98m , [illegible] $3.2\times10^{-3}$ ~$4.9\times10^{-3}$cm/s , [illegible] $10^{-4}$cm/s ,[illegible]

② [illegible]

[illegible],[illegible],[illegible]

③ [illegible]

[illegible],[illegible],[illegible],[illegible],[illegible]

④ [illegible]

[illegible],[illegible] 2992. 12m$^3$/d,[illegible]

⑤ [illegible]

[illegible]

[illegible] 1-4-4[illegible]

**□1-4-4　I□□□□□□□□□□□□□□□□□□□□**

| □□□□□□ | □□□□ | □□ | □□ □□ |
|---|---|---|---|
| □□□□□□□ | □(□)□□□□□ 0.85~33.98m , □□□□ K>$10^{-4}$cm/s | □ | □□ |
| □□□□□□□ | □□□□□, □□□□□□□□□□□□□□□□□□ □□ | □□ | |
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| □□□□□□ | □□□□□□ 2992. 12$m^3$/d | □ | |
| □□□□□□ | □□□□□□=2;□□□□□□=3□ | □□ | |

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① □□□□□□□□□□□□□□

□□□□□□□□□ 2478$m^3$/d,□□□□□□□□□□□□□□□□□

② □□□□□□□□□□□□□□□□

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$$R = 10S\sqrt{K}$$

$$R_0 = r_0 + 10\sqrt{S}$$

$K$□□: R—□□□□ (m);

S—□□□□□ (m);

$K$—□□□□ (m/d);

$R_0$——□□□□□□□□□ (m);

$r_0$——□□□□ (m)□

□□□□□□□□□□□□□□,□□□□□□□□□□□□□□□□□□□□□□□ 1-4-5□

[illegible] **1-4-5** [illegible]

| [illegible] | [illegible] | [illegible] (m/d) | [illegible] (m) | [illegible] (m) | [illegible] (km) | [illegible] (km) |
|---|---|---|---|---|---|---|
| [illegible] | [illegible] | 0.002~0.031 | 142~550 | 250.01~938.37 | 3.69~3.79 | 4.63~4.73 |

[illegible] 3.79~10.97km, [illegible] 4.75~10.41km, [illegible] 1/2 [illegible], [illegible], [illegible] 4.63~4.73km, [illegible], [illegible]

③ [illegible]

[illegible], [illegible]

④ [illegible]

[illegible], [illegible] = [illegible], [illegible], [illegible]

[illegible] **1-4-6** [illegible]

| [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|
| [illegible] ([illegible]) [illegible] | [illegible] 2992. 12m$^3$/d, < 1 [illegible] m$^3$/d | [illegible] | [illegible] |
| [illegible] | [illegible] > 1.5km | [illegible] | |
| [illegible] | [illegible] | [illegible] | |
| [illegible] | [illegible] | [illegible] | |

[illegible] I [illegible] II [illegible], [illegible] III [illegible]

(2) [illegible]

[illegible] (HJ 610—2011) [illegible], [illegible], [illegible]: [illegible] 5km, [illegible]**:** [illegible]

[illegible], [illegible] 240km$^2$ , [illegible] 1km,[illegible] 35km$^2$[illegible]

(3) [illegible]

① [illegible](Ⅰ[illegible])[illegible]

[illegible]: pH[illegible] 22 [illegible]

[illegible]:[illegible]CODcr[illegible]

② [illegible]([illegible])[illegible]

[illegible]:[illegible]

## 1.4.3 [illegible]

### 1.4.3.1 [illegible]

[illegible],[illegible],[illegible],[illegible], [illegible] 2 [illegible],[illegible]

### 1.4.3.2 [illegible]

[illegible] 200m [illegible]

### 1.4.3.3 [illegible]

[illegible] A [illegible] (Leq)[illegible]

## 1.4.4 [illegible]

### 1.4.4.1 [illegible]

[illegible]——[illegible] (HJ19-2011),[illegible] 1-4-7[illegible]

[illegible] **1-4-7** [illegible]

| [illegible] | [illegible]([illegible])[illegible] | | |
|---|---|---|---|
| | [illegible]≥$20\text{km}^2$[illegible]<br>[illegible]<br>≥100km | [illegible]<br>$2\text{km}^2$~$20\text{km}^2$<br>[illegible]<br>50km~100km | [illegible]≤$2\text{km}^2$[illegible]<br>[illegible]<br>≤500km |
| [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] | [illegible] |

[illegible] $48.5\text{hm}^2$ ,[illegible] $20\text{km}^2$ [illegible],[illegible],[illegible],[illegible],[illegible]—[illegible](H19-2011) [illegible], [illegible] $85.37\ \text{km}^2$ , [illegible],[illegible],[illegible]

### 1.4.4.2 [illegible]

[illegible]:[illegible] 2km [illegible],[illegible] $174.11\text{km}^2$ [illegible]

### 1.4.4.3 [illegible]

[illegible]:[illegible];

[illegible]:[illegible]

## 1.4.5 [illegible]

### 1.4.5.1 [illegible]

[illegible] (HJ/T169-2004)[illegible],[illegible] 1-4-8[illegible]

[illegible] **1-4-8** [illegible]

| | [illegible] | [illegible] | [illegible] [illegible] | [illegible] |
|---|---|---|---|---|
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |

[illegible], [illegible]

[illegible], [illegible] 0.3km [illegible], [illegible],[illegible]

[illegible], [illegible], [illegible]
[illegible],[illegible]

### 1.4.5.2 [illegible]

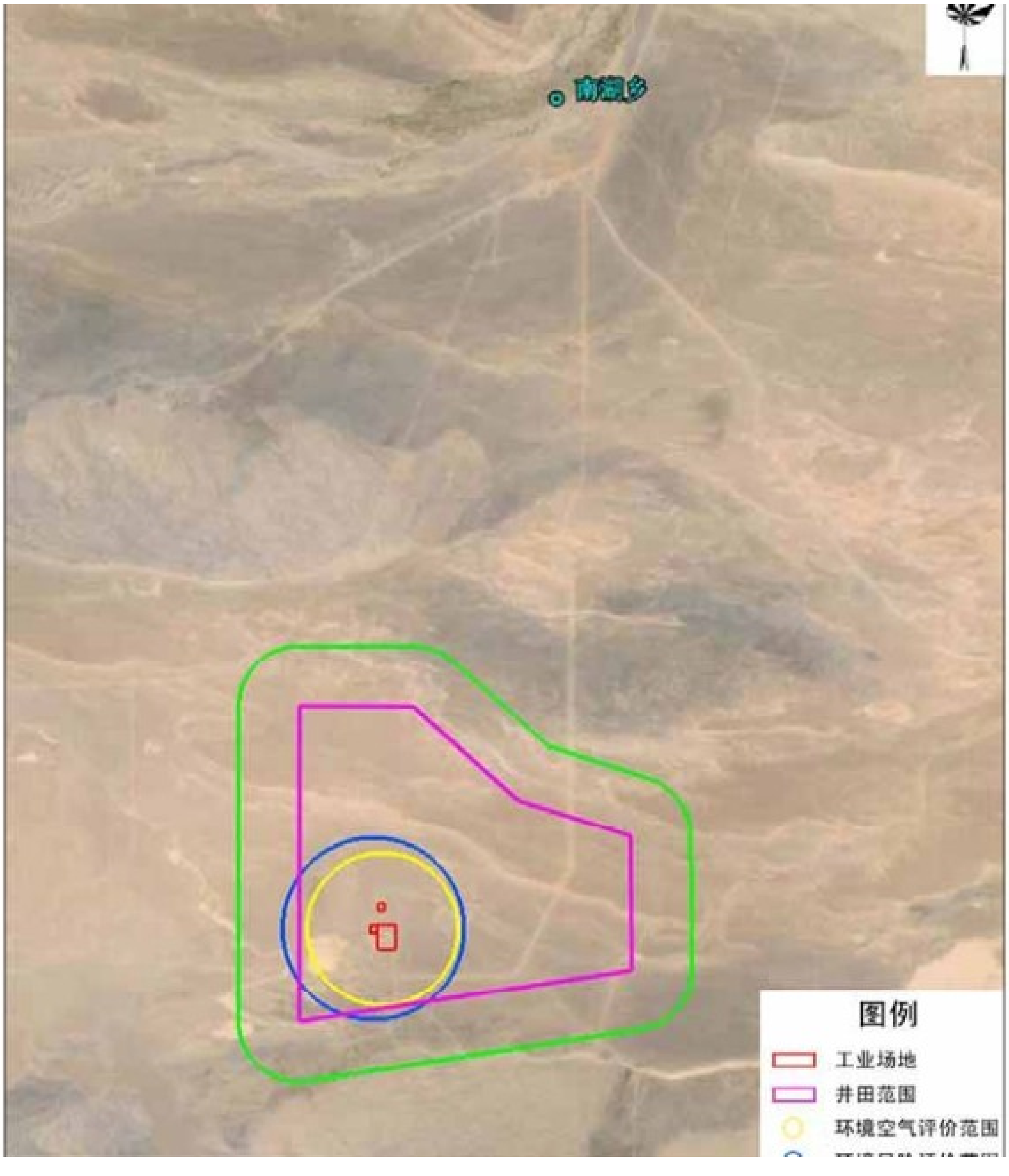
[illegible]: [illegible] 3.0km [illegible]; [illegible]

## 1.4.6 [illegible]

[illegible] 500m [illegible]

## 1.4.7 [illegible]

[illegible] 1-4-9 , [illegible] 1.4-1 [illegible]


南湖乡
图例
工业场地
井田范围
环境空气评价范围

[illegible] 1-4-9 [illegible]

| [illegible] | [illegible] | [illegible] |
|---|---|---|
| [illegible] | [illegible] | [illegible] 2km,[illegible] 174. 11km$^2$ |
| [illegible] | [illegible] | [illegible],[illegible] 2.5km [illegible] |
| [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] 5km, [illegible] [illegible],[illegible] 240km$^2$ ,[illegible] 1km,[illegible] 35km$^2$ |
| [illegible] | [illegible] | [illegible] 200m [illegible]; |
| [illegible] | [illegible] | [illegible] 3.0km [illegible];[illegible] |
| [illegible] | / | [illegible] 500m [illegible] |

## 1.5 [illegible]

[illegible],[illegible]:

(1) [illegible], [illegible]: [illegible]

(2) [illegible], [illegible]

(3)[illegible]

## 1.6 [illegible]

[illegible] 1-6-1[illegible]

**[illegible] 1-6-1** [illegible]

| [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|
| [illegible] | | | |
| [illegible] | [illegible] | [illegible] | [illegible] (GB12523-2011) |
| [illegible] | [illegible] | [illegible],[illegible],[illegible] [illegible] | [illegible] |
| [illegible] | SS[illegible]COD | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible],[illegible] | [illegible], [illegible] (GB20426-2006)[illegible] |
| [illegible] | | | |
| [illegible] | [illegible] | ① [illegible] 8 [illegible] ABDCC-14-[illegible];<br>② [illegible]; ③ [illegible] | [illegible] 80mg/m$^3$ [illegible] 98%[illegible] |
| [illegible] | [illegible] | ① [illegible], [illegible]; ② [illegible] | |
| [illegible] | [illegible] | [illegible],[illegible] | [illegible] (GB20426-2006)[illegible] |
| [illegible] | [illegible] | [illegible],[illegible],[illegible] | |
| [illegible] | [illegible] | [illegible] | [illegible] (GB12348-2008) 2 [illegible] |
| [illegible] | [illegible] | [illegible],[illegible] | [illegible] (GB20426-2006)[illegible] |
| [illegible] | [illegible] | [illegible] | [illegible] |

## 1.6.2 [illegible]

[illegible], [illegible]:

(1)[illegible];

(2) [illegible], [illegible];
(3)[illegible],[illegible]

## 1.6.3 [illegible]

[illegible],[illegible] 1-6-2 [illegible] 1.4-1 [illegible]

**[illegible] 1-6-2** [illegible]

| [illegible] | | | | [illegible] | [illegible] |
|---|---|---|---|---|---|
| [illegible] | [illegible] | [illegible] | | [illegible] | [illegible] 1000 m [illegible] |
| | | | | [illegible] | [illegible] 20km |
| | | [illegible] | | [illegible] 200m [illegible] | |
| | [illegible] | [illegible] | | [illegible] | |
| | [illegible] | | [illegible] | [illegible],[illegible] GB3095-2012 [illegible] | [illegible] 0.3km [illegible] |
| | | | [illegible] | [illegible] | |
| | | | [illegible] | [illegible];[illegible] | |
| | [illegible] | [illegible] | | [illegible] | |
| | | [illegible] | | | |
| | | [illegible] | | | |
| | [illegible] | [illegible] | | [illegible],[illegible] | [illegible] |
| | | [illegible] | | [illegible] | |
| | | [illegible] | | [illegible] | |
| [illegible] | [illegible] | | | [illegible] | |
| | [illegible] | [illegible] | | [illegible] | |
| | [illegible] | | | [illegible] | |
| | [illegible] | | | [illegible] | [illegible] |

# 2 [illegible]

## 2.1 [illegible]

### 2.1.1 [illegible] [illegible] [illegible] [illegible]

(1)[illegible]:[illegible]
(2)[illegible]:[illegible] 12.00Mt/a,[illegible]

(3)[illegible]:[illegible]

(4)[illegible]:[illegible],[illegible] 190° [illegible] 40km [illegible],[illegible] 20km ,[illegible]

### 2.1.2 [illegible]

[illegible],[illegible] 12.0Mt/a[illegible]

[illegible] 12.0Mt/a , [illegible] 90.4a,[illegible] (2005 [illegible])[illegible]

[illegible],[illegible] 12.00Mt/a[illegible]

### 2.1.3 [illegible]

[illegible] 2-1-1[illegible]

[illegible] 2-1-1 [illegible]

| [illegible] | [illegible] | [illegible] |
|---|---|---|
| [illegible] | [illegible] | [illegible]+546.0m[illegible],[illegible],[illegible],[illegible] 10 [illegible] 180°, [illegible] 13.5°,[illegible] 1253m, [illegible] 5.2m,[illegible] 4.0m,[illegible] 19.0m$^2$,[illegible], [illegible], [illegible] 10 [illegible],[illegible],[illegible],[illegible] |
| | [illegible] | [illegible]+546.0m,[illegible] 7 [illegible], [illegible] 180°,[illegible] 5.5°,[illegible] 2499m, [illegible] 5.6m,[illegible] 4.2m ,[illegible] 20.2m$^2$, [illegible], [illegible]<br>[illegible],[illegible], [illegible], [illegible], [illegible] 400m[illegible],[illegible],[illegible],[illegible],[illegible] 10 [illegible], [illegible], [illegible] 1159m[illegible] |
| | [illegible] | [illegible] 303 [illegible],[illegible] 560m [illegible],[illegible]+250m [illegible], [illegible]([illegible])[illegible]+546.0m,[illegible] +250m, [illegible] 296m, [illegible] 7.0m, [illegible] 38.5m$^2$, [illegible],[illegible], [illegible], [illegible] |
| | [illegible] | [illegible]+546.0m,[illegible]+250m,[illegible] 296m, [illegible] 7.0m ,[illegible] 38.5m$^2$, [illegible], [illegible], [illegible], [illegible],[illegible] |
| | [illegible] | [illegible] |
| [illegible] ([illegible] [illegible]) | [illegible] | [illegible] 150mm,[illegible] 13mm[illegible] 13mm [illegible], 150-13mm [illegible], -13mm [illegible], 3-0.25mm [illegible]; -0.25mm [illegible] |

| [illegible] | [illegible] | [illegible] |
|---|---|---|
| [illegible] | [illegible] | [illegible]; [illegible] |
|  | [illegible] | [illegible]([illegible],[illegible], [illegible]) [illegible], [illegible] K1252+700 ([illegible]: 42°17'49.51"N , 93°59'56.77"E),[illegible]([illegible] 42°19'42. 19"N , 93°20'53. 14"E)[illegible] 62.3km, [illegible] 4.3km[illegible]<br>[illegible]([illegible],[illegible],[illegible]) [illegible], [illegible] DK0+000 [illegible],[illegible] 6km [illegible],[illegible], [illegible] 23km [illegible], [illegible] K42+130[illegible] 32.831km[illegible]<br>[illegible]([illegible],[illegible], [illegible]) [illegible], [illegible], [illegible], [illegible], [illegible],[illegible] 5.887 [illegible] |
| [illegible] | [illegible] | [illegible] (2Φ30m): [illegible], [illegible], [illegible], [illegible], [illegible],[illegible],[illegible] 58m,[illegible] 6 [illegible] |
|  | [illegible] | [illegible] (3Φ30m): [illegible], [illegible], [illegible], [illegible], [illegible],[illegible],[illegible] 16m,[illegible] 1.8x4=7.2 [illegible] |
|  | [illegible] | [illegible] (1Φ12m): [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible] 2100 [illegible] |
|  | [illegible] | [illegible] (4Φ15m): [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible] 10000 [illegible] |
|  | [illegible] | [illegible] (1Φ80m):[illegible],[illegible], [illegible]; [illegible], [illegible],[illegible],[illegible] 33000 [illegible] |
|  | [illegible] | [illegible] (109 [illegible] t/a)[illegible] 300 [illegible],[illegible],[illegible],[illegible] $5hm^2$ , [illegible] 3~5 [illegible] |

| [illegible] | [illegible] | [illegible] |
|---|---|---|
| | | [illegible],[illegible],[illegible], [illegible], [illegible], [illegible] |
| [illegible] | [illegible] | [illegible] |
| | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] 26.18 [illegible], [illegible] 72485 Ⅳ,[illegible] 69689 Ⅳ, [illegible] 2796 Ⅳ[illegible]([illegible],[illegible],[illegible]) |
| | [illegible] | [illegible],[illegible], [illegible],[illegible],[illegible] (GB50383-2006)[illegible], [illegible] (GB/T 18920　2002)[illegible],[illegible],[illegible], [illegible]: $Q=400m^3/h=9600\ m^3/d$[illegible] |
| | [illegible] | [illegible],[illegible],[illegible] (MBR [illegible]) [illegible], [illegible](GB/T 18920 __2002) [illegible], [illegible], [illegible], [illegible], [illegible]<br>[illegible],[illegible]: $Q=840m^3/d$[illegible] |
| | [illegible] | [illegible] $5722.35m^3/d$ ([illegible] $5640.8m^3/d$ [illegible] $5803.89m^3/d$ ), [illegible]: [illegible] $2354.1m^3/d$, [illegible] $3368.25m^3/d$([illegible] $3286.7m^3/d$[illegible] $3449.79m^3/d$) |
| | [illegible] | [illegible];[illegible],[illegible] |
| | [illegible] | [illegible] 110kV [illegible] 110kV [illegible],[illegible] 56km,[illegible] LGJ__185 [illegible]; [illegible] 220kV [illegible] 110kV [illegible], [illegible] LGJ__185, [illegible] 48km[illegible], [illegible] |

| [illegible] | [illegible] | [illegible] |
|---|---|---|
|  | [illegible] | [illegible] 2×660MW [illegible] 2014 [illegible] 8 [illegible], [illegible], [illegible], [illegible], [illegible] 125~80°C[illegible], [illegible] |

## 2.1.4 [illegible]

[illegible], [illegible] 190° [illegible] 40km [illegible], [illegible], [illegible] 20km [illegible]: [illegible] 93°19,06 [illegible] — 93°29,00 [illegible], [illegible] 42°18,00 [illegible] — 42°24,30 [illegible], [illegible] 85.37km$^2$, [illegible] 2.1-1[illegible]

[illegible], [illegible] — [illegible]([illegible]) [illegible] — [illegible] 15km [illegible] 312 [illegible], [illegible] 38km[illegible], [illegible], [illegible], [illegible]

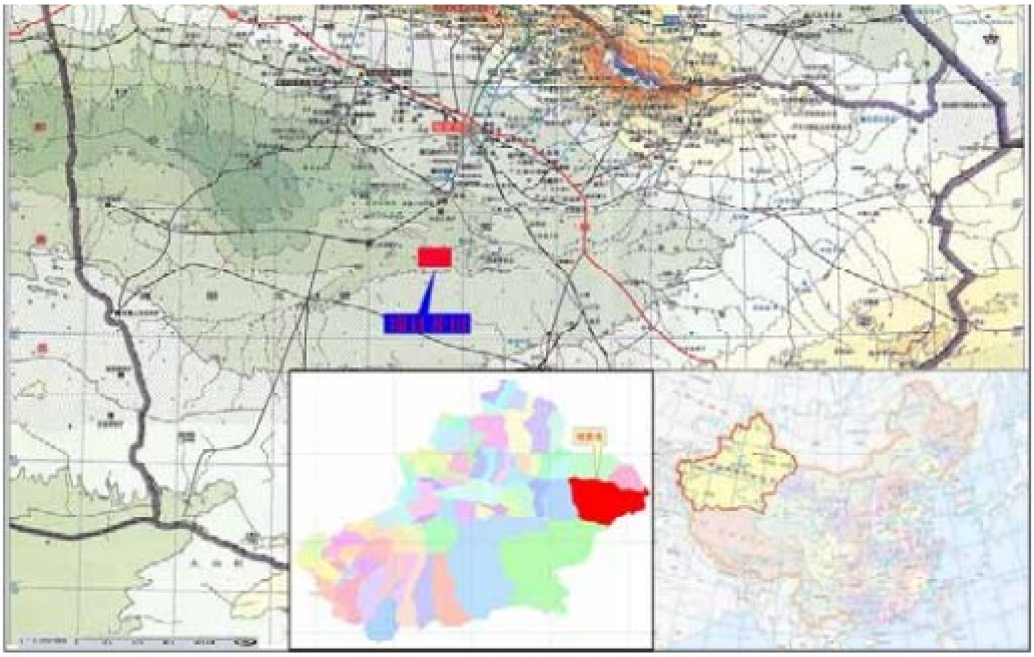


图2.1-1　项目地理位置示意图

## 2.1.5 [illegible]

### 2.1.5.1 [illegible]

[illegible]，[illegible]，[illegible]，[illegible] 1729 [illegible]，[illegible] 1529 [illegible]，[illegible] 160 [illegible]，[illegible] 1225 [illegible]，[illegible] 70 [illegible]，[illegible] 72 [illegible]，[illegible] 35 [illegible]，[illegible] 36 [illegible]

### 2.1.5.2 [illegible]

[illegible]：[illegible] 330d，[illegible]“[illegible]”，[illegible]，[illegible]“[illegible]”，[illegible]，[illegible]：[illegible] 330d，[illegible] 16h，[illegible] 5280h，[illegible]

## 2.1.6 [illegible]

[illegible] 511213.44 [illegible], [illegible] 426.01 [illegible]: [illegible] 338022.22 [illegible], [illegible] 66. 1%, [illegible] 52643.29 [illegible], [illegible] 10.3%, [illegible] 115791.58 [illegible], [illegible] 22.7%[illegible]

## 2.1.7 [illegible]

### 2.1.7.1 [illegible]

[illegible], [illegible] 707m [illegible], [illegible] 1.7km [illegible]

[illegible]; [illegible] 54.9km [illegible] 110kV [illegible] 47.7km [illegible] 220kV [illegible]; [illegible]

[illegible], [illegible], [illegible], [illegible] ([illegible] 2.1-3 [illegible])[illegible]

### 2.1.7.2 [illegible]

[illegible], [illegible], [illegible]: [illegible], [illegible] +543.6m~+548m [illegible], [illegible] 2%[illegible]: [illegible], [illegible]; [illegible]; [illegible], [illegible]; [illegible]([illegible] 2.1-4 [illegible]

[illegible])[illegible]:

(1)[illegible]

[illegible]: [illegible], [illegible]

[illegible] 590m [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

[illegible],[illegible] 560m[illegible]; [illegible], [illegible],[illegible],[illegible], [illegible], [illegible],[illegible],[illegible]

(2)[illegible]

[illegible] 56.3km [illegible] 110kv [illegible] 48km [illegible] 220kv [illegible],[illegible],[illegible], [illegible], [illegible],[illegible] 2km [illegible],[illegible], [illegible], [illegible], [illegible], [illegible]

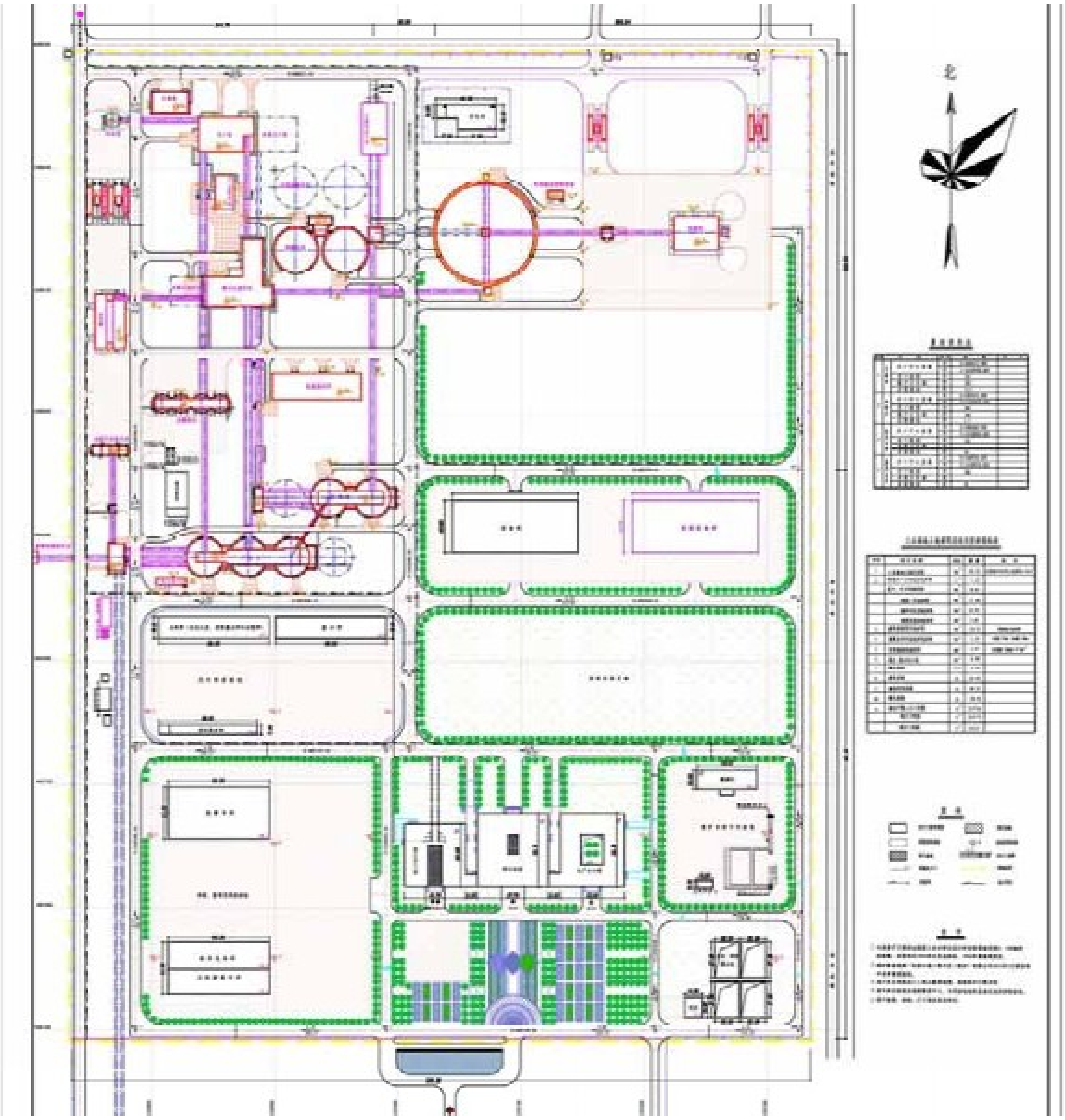
(3)[illegible]

[illegible], [illegible], [illegible], [illegible]

[illegible], [illegible], [illegible]

(4) [illegible]

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible],[illegible]



## 2.1.7.3 [illegible]

[illegible]，[illegible]+543.6m~+548m [illegible]，[illegible] 2% [illegible],[illegible],[illegible]，[illegible]，[illegible]，[illegible]。

[illegible],[illegible] 30 [illegible] $m^3$,[illegible] 10 [illegible] $m^3$, [illegible] 13.4 [illegible] $m^3$ [illegible]

## 2.1.7.4 [illegible]

(1) [illegible]

[illegible] 560m,[illegible],[illegible]，[illegible]，[illegible] 2.48hm$^2$ ,[illegible]

(2) [illegible]

[illegible]，[illegible]，[illegible],[illegible] 13.4 [illegible] $m^3$ [illegible] 300 [illegible]，[illegible],[illegible],[illegible] 5hm$^2$ ,[illegible] 3~5 [illegible]

(3) [illegible]

[illegible]: [illegible]，[illegible]

(4) [illegible]

[illegible] 50 [illegible],[illegible],[illegible]，“[illegible] 30min [illegible]”[illegible]，[illegible]，[illegible]

[illegible]，[illegible]，[illegible]，[illegible]

[illegible], [illegible] 1.7km [illegible],[illegible]

### 2.1.7.5 [illegible]

[illegible],[illegible],[illegible] 17.6h m$^2$[illegible]

[illegible], [illegible], [illegible], [illegible]; [illegible], [illegible] 4 [illegible], [illegible] 4 [illegible], 4 [illegible], 4 [illegible],[illegible],[illegible]

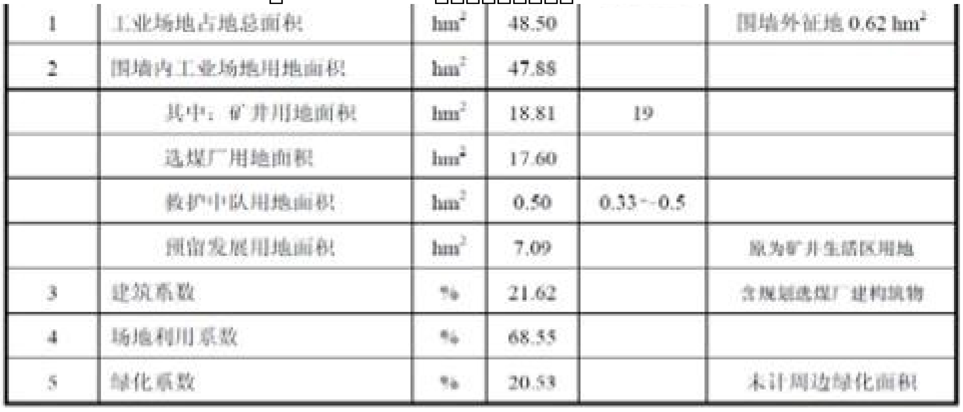
[illegible], [illegible]; [illegible]; [illegible], [illegible],[illegible];[illegible],[illegible]

[illegible]: [illegible]; [illegible]; [illegible]

### 2.1.7.6 [illegible]

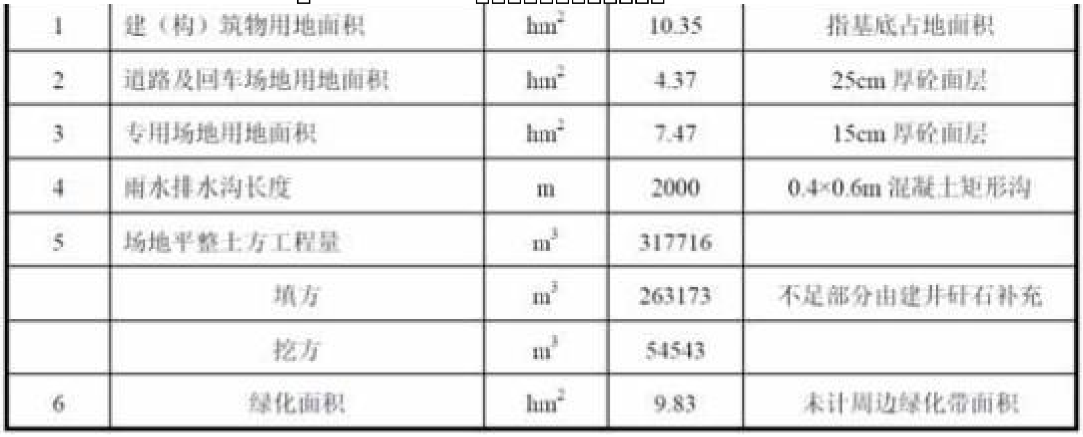
[illegible] 2-1-2 [illegible] 2-1-3[illegible]

[illegible] 2-1-2 [illegible]



| | | | | | |
|---|---|---|---|---|---|
| 1 | 工业场地占地总面积 | hm² | 48.50 | | 围墙外征地 0.62 hm² |
| 2 | 围墙内工业场地用地面积 | hm² | 47.88 | | |
| | 其中：矿井用地面积 | hm² | 18.81 | 19 | |
| | 选煤厂用地面积 | hm² | 17.60 | | |
| | 救护中队用地面积 | hm² | 0.50 | 0.33～0.5 | |
| | 预留发展用地面积 | hm² | 7.09 | | 原为矿井生活区用地 |
| 3 | 建筑系数 | % | 21.62 | | 含规划选煤厂建构筑物 |
| 4 | 场地利用系数 | % | 68.55 | | |
| 5 | 绿化系数 | % | 20.53 | | 未计周边绿化面积 |

[illegible] 2-1-3 [illegible]



| | | | | |
|---|---|---|---|---|
| 1 | 建（构）筑物用地面积 | hm² | 10.35 | 指基底占地面积 |
| 2 | 道路及回车场地用地面积 | hm² | 4.37 | 25cm 厚砼面层 |
| 3 | 专用场地用地面积 | hm² | 7.47 | 15cm 厚砼面层 |
| 4 | 雨水排水沟长度 | m | 2000 | 0.4×0.6m 混凝土矩形沟 |
| 5 | 场地平整土方工程量 | m³ | 317716 | |
| | 填方 | m³ | 263173 | 不足部分由建井矸石补充 |
| | 挖方 | m³ | 54543 | |
| 6 | 绿化面积 | hm² | 9.83 | 未计周边绿化带面积 |

## 2.1.8 [illegible]

### 2.1.8.2 [illegible]

[illegible]; [illegible]

[illegible]

[illegible]([illegible], [illegible], [illegible])[illegible],[illegible],[illegible], [illegible], [illegible], [illegible] 5.887 km[illegible]: 13m,[illegible]: 2×4.35m[illegible]

### 2.1.8.2 [illegible]

[illegible]([illegible],[illegible],[illegible])[illegible], [illegible] K1252+700 ([illegible]: 42°17'49.51"N, 93°59'56.77"E),[illegible]([illegible] 42°19'42.19"N, 93°20'53.14"E)[illegible] 62.3km,[illegible] 4.3km[illegible]

[illegible]([illegible], [illegible], [illegible]) [illegible], [illegible] DK0+000 [illegible], [illegible] 6km [illegible], [illegible], [illegible] 23km [illegible], [illegible] K42+130 [illegible] 32.831km[illegible]

## 2.1.9 [illegible]

[illegible] 2-1-4[illegible]

**[illegible] 2-1-4** [illegible]

| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|
| 1 | [illegible] | | | |
| 1.1 | [illegible] | km | 3.79~11.00 | |
| 1.2 | [illegible] | km | 4.75~10.41 | |
| 1.3 | [illegible] | $km^2$ | 85.37 | |
| 2 | [illegible] | | | |
| 2.1 | [illegible] | [illegible] | 18 | |
| 2.2 | [illegible] | m | 68.4 | |

| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|
| 2.3 | [illegible] | m | 2.33 | |
| 2.4 | [illegible] | [illegible] | 5～15 | |
| 3 | [illegible]/[illegible] | | | |
| 3.1 | [illegible] | Mt | 2502.49 | |
| 3.2 | [illegible]/[illegible] | Mt | 2262.76 | |
| 3.3 | [illegible]/[illegible] | Mt | 2255.78 | |
| 3.4 | [illegible] | Mt | 1518.17 | |
| 3.5 | [illegible]([illegible])[illegible] | $\text{km}^2$ | | |
| 3.6 | [illegible]/[illegible] | Mt | | |
| 4 | [illegible] | | 41CY | |
| 4.1 | a [illegible] | | | |
| 4.2 | b [illegible] | | | |
| 5 | [illegible] | | | |
| 5.1 | [illegible]([illegible]) | % | 17.77 | |
| 5.2 | [illegible]([illegible]/) | % | 0.44 | |
| 5.3 | [illegible] | % | 40.94 | |
| 5.4 | [illegible] | MJ/kg | 21.50~25.97 | |
| 6 | [illegible] | | | |
| 6.1 | [illegible] | Mt/a | 12.0 | |
| 6.2 | [illegible] | t/d | 36364 | |
| 7 | [illegible] | | | |
| 7.1 | [illegible] | a | 90.4 | |
| 7.2 | [illegible]:[illegible] | a | 46 | |
| 7.3 | [illegible] | d | 330 | |
| 7.4 | [illegible] | [illegible] | 4 | |
| 8 | [illegible] | — | | |
| 8.1 | [illegible] | — | [illegible] | |
| 8.2 | [illegible] | [illegible] | 3 | |
| 8.3 | [illegible] | m | +328 | |
| 8.4 | [illegible] | m | +395 | |
| 8.5 | [illegible] | — | [illegible] | |
| 8.6 | [illegible] | — | [illegible] | |
| 9 | [illegible] | — | | |
| 9. | [illegible] | [illegible] | 3 | |

| | | | | |
|---|---|---|---|---|
| 1 | | | | |
| 9.2 | [illegible] | [illegible] | 8 | |
| 9.3 | [illegible] | — | [illegible] | |
| 9.4 | [illegible] | — | | |
| 9.4.1 | [illegible] | [illegible] | 7LS5 | |
| 9.4.2 | [illegible]([illegible]) | [illegible] | ZY7200/17/35<br>ZFS7800/17/35 | |
| 9.4.3 | [illegible] | [illegible] | SGZ__1000/1200 | |
| 10 | [illegible] | — | | |
| 10.1 | [illegible] | [illegible] | DTL160/340/4×1400 | |
| 10.2 | [illegible] | [illegible] | [illegible] | |
| 10.3 | [illegible] | [illegible] | GAF33.5__17__1 | |
| 10.4 | [illegible] | [illegible] | MDS450-95×3(P) | |

| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|
| 10.5 | [illegible] | [illegible] | MM300—2SA | |
| 11 | [illegible] | | | |
| 11.1 | [illegible] | Mt/a | 12.0 | |
| 11.2 | [illegible] | | [illegible] | |
| 11.3 | [illegible] | mm | 13 | |
| 11.4 | -13mm [illegible] | | [illegible] | |
| 12 | [illegible] | — | | [illegible] |
| 12.1 | [illegible] | m | | |
| 12.1.1 | [illegible]:[illegible] | km | 15 | |
| 12.1.2 | [illegible] | m | 1050 | |
| 12.2 | [illegible] | km | 36.8 | |
| 13 | [illegible] | — | | |
| 13.1 | [illegible]([illegible]) | hm$^2$ | 364.13 | |
| 13.1.1 | [illegible]:[illegible] | hm$^2$ | 31.95 | |
| 13.1.2 | [illegible] | hm$^2$ | 2.48 | |
| 14 | [illegible] | — | | |
| 14.1 | [illegible] | m$^3$ | 51925 | |
| 14.2 | [illegible] | m$^2$ | 54619 | |
| 15 | [illegible] | — | | |
| 15.1 | [illegible] | [illegible] | 1729 | |
| 15.1.1 | [illegible]:[illegible] | [illegible] | 1225 | |
| 15.1.2 | [illegible] | [illegible] | 1529 | |
| 15.2 | [illegible] | t/[illegible] | 38.16 | |
| 16 | [illegible] | [illegible] | 511213.44 | |
| 16.1 | [illegible] | [illegible] | 338022.22 | [illegible] |
| 16.1.1 | [illegible]:[illegible] | [illegible] | 333153.52 | |
| 16.1.1 | [illegible] | [illegible] | 309009.29 | |
| 16.1.1 | [illegible]:[illegible] | [illegible] | 72385.84 | |
| 16.1.1 | [illegible] | [illegible] | 26790.25 | |
| 16.1.1 | [illegible] | [illegible] | 122320.65 | |
| 16. | [illegible] | [illegible] | 24970.21 | |

| | | | | |
|---|---|---|---|---|
| 1.1 | | | | |
| 16.1.1 | □□□□ | □□ | 26992.59 | |
| 16.1.1 | □□□□□ | □□ | 35549.74 | |
| 16.1.1 | □□□□□□□□ | □□ | 24144.23 | |
| 16.1.2 | □□□□□□ | □□ | 4868.70 | |
| 16.2 | □□□□ | □/t | 281.69 | |
| 16.2.1 | □□:  :□□□□□□ | □/t | 257.51 | |
| 17 | □□□□□□□ | — | | |
| 17.1 | □□□□□□ | □/t | 94.76 | |
| 17.2 | □□□□□□ | □/t | 146 | |
| 18 | □□□□□ | — | | |
| 18.1 | □□□□ | □ | 34 | |
| 18.2 | □□□□□□□□□□ | □ | 24 | |

| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|
| 19 | [illegible] | — | | |
| 19.1 | [illegible] | % | 14.66 | [illegible] |
| 19.2 | [illegible] ($i_c$=10) | [illegible] | 109138 | [illegible] |
| 19.3 | [illegible] | a | 13.22 | [illegible] |
| 19.4 | [illegible] | % | 9.43 | |
| 19.5 | [illegible] | % | 16.70 | |
| 19.6 | [illegible] | a | 10.03 | [illegible] |

## 2. 2 [illegible]

### 2.2.1 [illegible]

[illegible],[illegible] 190°[illegible] 40km [illegible],[illegible]

[illegible]([illegible]2015[illegible] 017 [illegible]),[illegible],[illegible] 3.79~11.00km,[illegible] 4.75~10.41km, [illegible] 85.37km$^2$, [illegible]: [illegible] 92°21,30 [illegible],[illegible] 42°21,20 [illegible] [illegible] 1-1[illegible]

**[illegible] 2-2-1** [illegible]

| [illegible] | [illegible](X) | [illegible](Y) | [illegible] | [illegible](X) | [illegible](Y) |
|---|---|---|---|---|---|
| 1 | 4695434.88 | 16526127.66 | 4 | 4691221.30 | 16537083.80 |
| 2 | 4695434.87 | 16529892.01 | 5 | 4686809.79 | 16537146.00 |
| 3 | 4692387.82 | 16533375.05 | 6 | 4685053.82 | 16526167.04 |

[illegible]:[illegible]+550 [illegible]-450 [illegible]

### 2.2.2 [illegible]

#### 2.2.2.1 [illegible]/[illegible]

[illegible] 18 [illegible], [illegible] 3[illegible]5[illegible]6[illegible]7[illegible]10[illegible]12[illegible]13[illegible]14[illegible]15[illegible]16[illegible]18[illegible]19[illegible]20[illegible]22[illegible]25[illegible]26[illegible]28[illegible]29$^{\#}$[illegible],[illegible] 2502.49Mt[illegible]: [illegible] (331)[illegible] 528.44Mt;

□□□□□□ (332)□ 775.40 Mt; □□□□□□ (333)□ 775.40 Mt□□□□□□□/□□□□□ 2-2-2□

**□ 2-2-2** □□□□□□/□□□□□

| □□ | □□ | □□□□□(□□) | | | |
|---|---|---|---|---|---|
| | | 331 | 332 | 333 | □□ |
| —□□ | 3 | 3761 | 4854 | 4235 | 12850 |
| | 5 | 2887 | 2919 | 5834 | 11640 |
| | 6 | 2020 | 2606 | 4559 | 9185 |
| | 7 | 16730 | 18811 | 18114 | 53655 |
| | 10 | 9585 | 9140 | 17215 | 35940 |
| | □□ | 34983 | 38330 | 49957 | 123270 |
| | 12 | 2817 | 2257 | 3603 | 8677 |
| | 13 | 772 | 1236 | 3807 | 5815 |
| | 14 | 2754 | 1701 | 3526 | 7981 |
| | 15 | 9499 | 11334 | 16824 | 37657 |
| | 16 | 1735 | 1559 | 4322 | 7616 |
| | □□ | 17577 | 18087 | 32082 | 67746 |
| | □□ | □□□□□(□□) | | | |
| | | 331 | 332 | 333 | □□ |
| | 18 | 208 | 3842 | 5035 | 9085 |
| | 19 | 76 | 3841 | 4205 | 8122 |
| | 20 | | 1997 | 3951 | 5948 |
| | 22 | | 2512 | 5284 | 7796 |
| | 25 | | 5833 | 11448 | 17281 |
| | 26 | | 1511 | 3157 | 4668 |
| | 28 | | 254 | 2559 | 2813 |
| | 29 | | 1333 | 2187 | 3520 |
| | □□ | 284 | 21123 | 37826 | 59233 |
| □□□□ | | 52844 | 77540 | 119865 | 250249 |

### 2.2.2.2 □□□□/□□□□□□

□□□□□□□□□□□□□□□□ ($J_2x$)□□□,□□ 29 □□□□□□□□□□□□□ 18 □, □□□□□□□□□□□□□ ($J_2x^2$) □□□□□ ($J_2x_1$)□□□□□□□□□($J_2x_2$)□□□□□□□□□□□□($J_2x$)□□□□□□ 419.21m ,□□□□□□ 95.81m,□□□□ 22.81%,□□□□□□ 68.40m,□□□□□ 71.39%□

(1)□□□□□□□□□

□□□□□□□□□□, □□□□, □□□□□, □□ 3~15°□□;□□□□□□□, □□□, □□□□□□□□□□□□□□□□□□□□□□□,□□□□□□□□□□□□□□□□,□□□□□□□□□□□□□□,□□□□□□□□□□□□□□□□□,□□□□□□□□□□□□□□□:

□□□□□: ≥0.80m□

□□□□ ($A_d$) 40%□

□□□□ ($S_{t.d}$) 3%□

□□□□□ ($Q_{net.d}$) 17MJ/kg□

(2)□□□□□□□□□

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### 2.2.2.3 □□□□□/□□

□□□□□□□□□□□□□□□ 18 □,□□□□□□□□ 3 □5 □6 □7 □10 □12 □13 □14 □15 □16 □18 □19 □20 □22 □25 □26 □28 □$29^{\#}$□□□

□□□□□□□□□□□□□□□□/□□□□□ (GB/T17766)□□□□□□□□□□□□□□ (DZ/T0215) □□□, □□□, □□□□□□□□ (331+332+333) 2502.49Mt□□□: (331) 528.44Mt , (332) 775.40 Mt , (333) 1198.65 Mt , (331) + (332) + (333) =2502.49Mt□

□□□□□□□□□□□, □□□□□□□□□□□□□□ (331)□□□□□□□ (332)□□□□□□ (333)□□, □□, □□□□□□□ 2502.49Mt□□□□□/□□□□ 2-2-2□

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□□□□□□, □□□□□□/□□□□□, □□□□□□□□□□□ (333)□□□□□□ 0.8□□□□□□□□□/□□□ 2262.76Mt□

□□□□/□□ = (331) + (332) + (333) ×K

=528.44+775.40+1198.65×0.8=2262.76 (Mt)

### 2.2.2.4 □□□□/□□

□□□□□□/□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□,□□□□□□□□/□□□□□□□,□□□□□□□ 6.98Mt□□□□□/□□□ 2255.78Mt□

### 2.2.2.5 □□□□□□

□□□□ 2255.78Mt, □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□, □□□□□□□1518. 17Mt□□□: □□□□□□□ 221.7Mt□□□□ 2-2-3□

□ **2-2-3** □□□□□□□□□□ □□**:** □□

| □□ | □□□□□□/□□ | □□□□□□ | | □□□□□□ | □□□□□□□□□□□□ | | | | □□□□ | □□□□□□ | □□□□(%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | □□□□□ | □□ | | □□□□□ | □□□□□□ | □□□□□ | □□ | | | |
| 3 | 12003 | 9.8 | 9.8 | 11993.2 | 316.4 | 106.7 | 651.5 | 1074.6 | 2183.7 | 8734.9 | 20 |
| 5 | 10473.2 | 31.9 | 31.9 | 10441.3 | 187.3 | 64.0 | 913.6 | 1164.9 | 1855.3 | 7421.1 | 20 |
| 6 | 8273.2 | 21.6 | 21.6 | 8251.6 | 226.2 | 1.1 | 832.9 | 1060.2 | 1438.3 | 5753.1 | 20 |
| 7 | 50032.2 | 136.9 | 136.9 | 49895.3 | 546.7 | 413.0 | 3928.5 | 4888.2 | 11251.8 | 33755.3 | 25 |
| 10 | 32497 | 72.0 | 72.0 | 32425 | 358.9 | 387.0 | 2816.3 | 3562.2 | 7215.7 | 21647.1 | 25 |
| □□ | 113278.6 | 272.2 | 272.2 | 113006.4 | 1635.5 | 971.8 | 9142.8 | 11750.1 | 23944.8 | 77311.5 | |
| 12 | 7956.4 | 33.1 | 33.1 | 7923.3 | 312.5 | 125.1 | 842.2 | 1279.8 | 1328.7 | 5314.8 | 20 |
| 13 | 5053.6 | 18.2 | 18.2 | 5035.4 | 354.0 | 78.8 | 681.2 | 1114 | 784.3 | 3137.1 | 20 |
| 14 | 7275.8 | 11.9 | 11.9 | 7263.9 | 54.2 | 135.7 | 873.4 | 1063.3 | 1240.1 | 4960.5 | 20 |
| 15 | 34292.2 | 79.7 | 79.7 | 34212.5 | 271.7 | 420.3 | 2896.7 | 3588.7 | 7656.0 | 22967.9 | 25 |
| 16 | 6751.6 | 34.2 | 34.2 | 6717.4 | 193.4 | 150.9 | 876.0 | 1220.3 | 1099.4 | 4397.7 | 20 |
| □□ | 61329.6 | 177.1 | 177.1 | 61152.5 | 1185.8 | 910.8 | 6169.5 | 8266.1 | 12108.5 | 40777.9 | |
| 18 | 8078 | 63.7 | 63.7 | 8014.3 | 26.1 | 178.4 | 982.5 | 1187 | 1365.5 | 5461.8 | 20 |
| 19 | 7281 | 19.8 | 19.8 | 7261.2 | 83.6 | 199.3 | 995.4 | 1278.3 | 1196.6 | 4786.3 | 20 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 20 | 5157.8 | 17.5 | 17.5 | 5140.3 | 0 | 141.2 | 746.4 | 887.6 | 850.5 | 3402.2 | 20 |
| 22 | 6739.2 | 11.3 | 11.3 | 6727.9 | 0 | 189.0 | 916.3 | 1105.3 | 1405.7 | 4217.0 | 25 |
| 25 | 14991.4 | 32.6 | 32.6 | 14958.8 | 0 | 539.3 | 1284.4 | 1823.7 | 3283.8 | 9851.3 | 25 |
| 26 | 4036.6 | 40.7 | 40.7 | 3995.9 | 0 | 145.3 | 340.9 | 486.2 | 701.9 | 2807.8 | 20 |
| 28 | 2301.2 | 18.4 | 18.4 | 2282.8 | 0 | 104.8 | 265.7 | 370.5 | 382.5 | 1529.8 | 20 |
| 29 | 3082.6 | 44.6 | 44.6 | 3038 | 0 | 304.8 | 504.9 | 809.7 | 557.1 | 1671.2 | 25 |
| [illegible] | 51667.8 | 248.6 | 248.6 | 51419.2 | 109.7 | 1802.1 | 6036.5 | 7948.3 | 9743.5 | 33727.4 | |
| [illegible] | 226276 | 697.9 | 697.9 | 225578.1 | 2931.0 | 3684.7 | 21348.8 | 27964.5 | 45796.7 | 151816.9 | |

### 2.2.2.6 [illegible]

[illegible], [illegible], [illegible]:[illegible]

[illegible], [illegible], [illegible], [illegible] 10m, [illegible] φ=45°,[illegible] δ=v=72°;[illegible] 20m;[illegible] 10m; [illegible] 50m, [illegible], [illegible]

## 2.2.3 [illegible]

### 2.2.3.1 [illegible]

(1)[illegible]

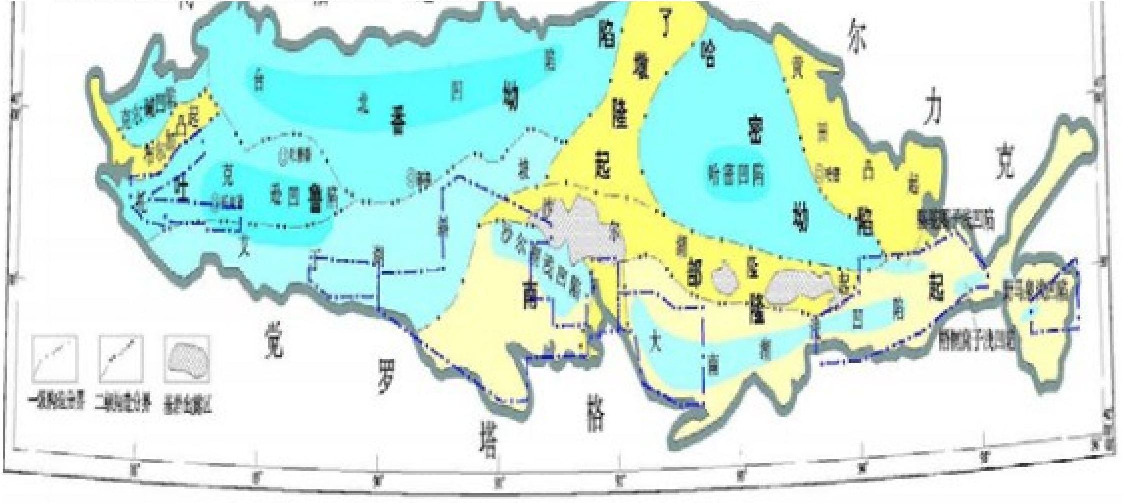
[illegible], [illegible];[illegible];[illegible];[illegible]

(2)[illegible]

[illegible],[illegible],[illegible] 2.2-1[illegible]

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible] 180km,[illegible] 5-25km ,[illegible] $2300\text{km}^2$ [illegible],[illegible]-[illegible],[illegible]

[illegible], [illegible] 170km[illegible], [illegible], [illegible], [illegible] 3°-13°[illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible] 50-150m[illegible]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格

[illegible] 2.2-1 [illegible]

### 2.2.3.2 [illegible]

(1)[illegible]

[illegible], [illegible] ($J_2x$)[illegible]

[illegible]:[illegible] (Q)[illegible] ($N_2p$)[illegible] ($J_2t$)[illegible] ($J_2x$)[illegible] ($J_1s$)[illegible] ($C_2wt$)[illegible]

(2)[illegible]

[illegible], [illegible], [illegible]([illegible])[illegible]

① [illegible]

[illegible], [illegible], [illegible],[illegible] L4 [illegible] 50 [illegible],[illegible]

② [illegible]

[illegible], [illegible], [illegible], [illegible]

[illegible]([illegible] ZK481[illegible]ZK504 [illegible] ZK531 [illegible])[illegible]([illegible] ZK485[illegible]ZK503 [illegible])[illegible], [illegible] ZK481 [illegible] ZK485 [illegible],[illegible],[illegible]

[illegible],[illegible] ZKJ202 [illegible] ZK493 [illegible] 100m [illegible], [illegible] ZK487 [illegible] ZKJ506,[illegible];[illegible] ZKJ204 [illegible]

[illegible], [illegible] 5~15°, [illegible], [illegible] 25~50° ,[illegible] 2 [illegible], [illegible] ZK506 [illegible], 15 [illegible] 1Km$^2$ ,[illegible] ZKJ502 [illegible] ZKJ505 [illegible], 15 [illegible] 0.25km$^2$[illegible]

③ [illegible]

[illegible], [illegible] ([illegible]$_{42}$)[illegible] ($\delta_{42}$)[illegible] ([illegible]$_{43}$)[illegible] ($\delta_{43}$)[illegible],[illegible], [illegible], [illegible]

[illegible]

## 2.2.4 □□

### 2.2.4.1 □□□

□□□□□□□□□□□□□□□□□（$J_2x$）□□□,□□ 29 □□□□□□□□□□□□□ 18 □, □□□□□□□□□□□□□（$J_2x^2$）□□□□□（$J_2x_1$）□□□□□□□□□（$J_2x^2$）□□□□□□□□

□□□□（$J_2x$）□□□□□□ 419.21m,□□□□□□ 95.81m,□□□□ 22.81%,□□□□□□ 68.40m,□□□□□ 71.39%□

□□□□□□□□□□□□□□□ 1~29□□□ 3 □7 □10 □15 □25 □28 □29 □□□□□□□□□; 5 □6 □12 □13 □14 □16 □18 □19 □20 □22 □26 □□□□□□□□□, □□□□□□□□□□□□□□□□□□, □□□□□□□, □□□,□□□□,□□□□□□,□□□□□□□□

### 2.2.4.2 □□□□□

□□□□□□□□□□□□□□□, □□□□□□□□□→□→□□□□□□□,□□□□□□□□□□□□

(1) □□□□（$J_2X_3$）: □□□□□□□□□□□, □□□□□ 0.30m □□□ 3 □,□□□□ 3.37m , □□□□□□□□□□□ 125.21m □,□□□□ 2.69%□□ 1 □2 □□□□,□□□□□□□□□□,□□□□□□□□

(2) □□□□（$J_2X_2$）: □□□□□□□□□□□□□□□□□□ 3~17 □□□ 15 □,□□□□□□ 10 □,□□□ 3 □5 □6 □7 □10 □12 □13 □14 □15 □16 □□□□□□□□□□□ 47.02m, □□□□□□ 154. 17m, □□□□□ 30.50% ,□□□□□□ 38.56m,□□□□□ 82.01%,□□□□□□□□□□□□□□□□□□□

(3)□□□□（$J_2X_1$）:□□□□□□□□□□□□□□,□□□ 18~29 □□□ 14 □,□□□□□□ 8 □,□□□ 18 □19 □20 □22 □25 □26 □28 □29 □□□□□□□□□□□ 45.42m,□□□□□□ 145.57m,□□□□ 31.20%□□□□□□□ 29.84m,□□□□ 65.70%□

□□□□□□□□□□□ 18 □,□□□□□□□□□ 2-2-4□

[illegible] 2-2-4 [illegible]

| [illegible] | [illegible] (m) | [illegible] (m) | [illegible] (m) | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | |
|---|---|---|---|---|---|---|---|---|---|---|
| [illegible] | [illegible]<br>[illegible]([illegible]) | [illegible]<br>[illegible]([illegible]) | [illegible]<br>[illegible]([illegible]) | | | | | [illegible] | [illegible] | [illegible] |
| 3 | 0.80-4.38<br>2.85(80) | 0.80-4.09<br>2.33(80) | 25.91-90.03<br>68.26(62) | 0-3 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 5 | 0.41-8.27<br>2.47(74) | 0.81-5.00<br>2.18 (70) | 2.27-28.05<br>8.36(54) | 0-3 | [illegible] | | [illegible] | [illegible] | [illegible] | [illegible] |
| 6 | 0.28-4.44<br>2.41(61) | 0.81-4.15<br>2.20(57) | 3.20-30.10<br>17.42(69) | 0-3 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 7 | 1.41-19.63<br>10.41(85) | 1.41-17.19<br>9.40(85) | 3.20-78.24<br>41.80(69) | 0-6 | [illegible] | | [illegible] | [illegible] | [illegible] | [illegible] |
| 10 | 0.67-14.25<br>6.19(82) | 1.68-14.25<br>6.23(80) | | 0-4 | [illegible] | | [illegible] | [illegible] | [illegible] | [illegible] |
| 11 | 0.47-1.89<br>1.28(39) | 0.86-1.73<br>1.27 (22) | 10.01-42.19<br>27.28(59) | 0-1 | [illegible] | | [illegible] | [illegible] | [illegible] | [illegible] |
| 12 | 0.63-5.72<br>2.37(68) | 0.84-4.75<br>2.15(65) | 2.66-38.09<br>6.99(55) | 0-3 | [illegible] | | [illegible] | [illegible] | [illegible] | [illegible] |
| 13 | 0.31-5.27<br>1.48(63) | 0.80-4.20<br>1.63(46) | 2.21-39.82<br>20.47(58) | 0-3 | [illegible] | | [illegible] | [illegible] | [illegible] | [illegible] |
| 14 | 0.55-11.69<br>2.60(67) | 0.83-11.28<br>2.38(60) | 2.34-19.81<br>11.09(62) | 0-2 | [illegible] | | [illegible] | [illegible] | [illegible] | [illegible] |
| 15 | 1.21-19.17<br>7.40(71) | 1.21-18.56<br>7.05(71) | 1.21-10.55<br>6.63(44) | 0-3 | [illegible] | | [illegible] | [illegible] | [illegible] | [illegible] |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | 0.67-7.52<br>2.66(49) | 0.89-7.52<br>2.45(49) | 20.43-79.73<br>38.11(25) | 0-3 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 18 | 0.81-5.83<br>2.77(29) | 0.81-5.83<br>2.86(28) | 6.63-23.89<br>19.87(18) | 0-2 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 19 | 0.52-4.87<br>3.05(22) | 1.19-4.87<br>2.75(21) | 12.55-74.92<br>34.63(15) | 0-3 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 20 | 0.78-5.55<br>2.91(18) | 0.87-3.81<br>2.41(17) | 5.80-49.59<br>16.89(11) | 0-3 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 22 | 1.95-7.99<br>4.16(11) | 1.95-5.81<br>3.62(11) | 17.73-90.37<br>39.81(14) | 0-4 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 25 | 1.73-18.66<br>9.55(16) | 1.73-15.34<br>8.29(16) | 4.69-13.31<br>8.81(7) | 0-9 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 26 | 0.85-4.62<br>3.12(9) | 0.85-4.62<br>2.84(9) | 3.53-28.14<br>11.05(7) | 0-3 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 28 | 0.89-2.88<br>1.95(9) | 0.89-2.88<br>1.78(9) | 2.83-18.09<br>9.18(7) | 0-3 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 29 | 1.20-6.31<br>4.25(10) | 1.20-6.31<br>3.55(9) | | 0-6 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |

## 2.2.5 [illegible]

### 2.2.5.1 [illegible]

[illegible],[illegible] (GB5751-2009), [illegible] 41 [illegible], [illegible], [illegible],[illegible]

### 2.2.5.2 [illegible]

(1) [illegible]

[illegible],[illegible]-[illegible],[illegible]-[illegible],[illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible],[illegible],[illegible] 1.34~1.44t/m$^3$ [illegible],[illegible] 1.39t/m$^3$ ,[illegible] 2-2-5[illegible]

[illegible] 2-2-5 [illegible]

| [illegible] | 3 | 5 | 6 | 7 | 10 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|
| [illegible] (ARD) | 1.36-1.54<br>1.44(17) | 1.29-1.60<br>1.40(19) | 1.32-1.56<br>1.42(9) | 1.28-1.46<br>1.37(24) | 1.30-1.42<br>1.35(25) | 1.29-1.51<br>1.37(14) | 1.30-1.39<br>1.34(37) | 1.31-1.55<br>1.37(22) |
| [illegible] | 15 | 16 | 18 | 19 | 20 | 22 | 25 | 26 |
| [illegible] (ARD) | 1.31-1.45<br>1.36(17) | 1.32-1.53<br>1.40(12) | 1.35-1.52<br>1.42(5) | 1.30-1.50<br>1.40(8) | 1.35-1.52<br>1.42(6) | 1.35-1.45<br>1.40(3) | 1.32-1.39<br>1.37(5) | 1.3-1.41<br>1.37(2) |
| [illegible] | 28 | 29 | [illegible] | | | | | |
| [illegible] (ARD) | 1.31-1.39<br>1.36(3) | 1.38-1.51<br>1.42(3) | 1.29-1.49<br>1.39(29) | | | | | |

(2) [illegible]

① [illegible]

[illegible] ($M_{ad}$): [illegible] (Mad) [illegible] 0.45~23.31% , [illegible] 7.41~13.05%, [illegible] 10.93%; [illegible]

[illegible] ($A_d$): [illegible] 4.87~49.21% [illegible], [illegible] 12.42~26.35%, [illegible] 17.77%, [illegible] 13 [illegible] 14 [illegible] 15 [illegible] 16 [illegible] 19 [illegible] 22 [illegible] 26 [illegible], [illegible]

[illegible]

[illegible] ($V_{daf}$): [illegible] (Vdaf)[illegible] 6.30~52.58%[illegible], [illegible] 37.22~45.71%,[illegible] 40.94%; [illegible] (Vdaf)[illegible] 24.45~50.99%[illegible], [illegible] 38.38~44.54%,[illegible] 41.30% ,[illegible]

② [illegible]

[illegible],[illegible]+[illegible],[illegible] ($C_{daf}$)[illegible], [illegible] 27.24~ 84.84%[illegible], [illegible] 74.11~77.93,[illegible] 76. 10%; [illegible]+[illegible] $(O+S)_{daf}$[illegible] 15.02~23.36%[illegible], [illegible] 15.02~20.28%, [illegible] 18.27%[illegible] ($H_{daf}$)[illegible] 2.67~7.86%[illegible], [illegible] 4.54~5.47% , [illegible] 4.77% , ; [illegible]($N_{daf}$)[illegible] 0.65~4.25%[illegible], [illegible] 0.75~1.69%,[illegible] 1.22%[illegible]

③ [illegible]

[illegible] ($S_{t.d}$): [illegible] ($S_{t.d}$) [illegible] 0.23~0.94%,[illegible] 0.44%;[illegible] 6 [illegible] 7 [illegible] 10 [illegible] 12 [illegible] 13 [illegible] 14 [illegible] 15 [illegible] 16 [illegible] 18 [illegible] 20 [illegible] 22 [illegible] 25 [illegible] 26 [illegible] 28 [illegible] 29 [illegible]; 5 [illegible] 19 [illegible]; 3 [illegible]

[illegible] ($P_d$): [illegible] ($P_d$) [illegible] 0.01~0.06%[illegible], [illegible] 0.02% ,[illegible]-[illegible] 3 [illegible] 12 [illegible] 14 [illegible] 15 [illegible] 18 [illegible] 19 [illegible] 20 [illegible] 22 [illegible]; 5 [illegible] 6 [illegible] 7 [illegible] 16 [illegible] 25 [illegible] 26 [illegible] 28 [illegible] 29 [illegible]; 10 [illegible] 13 [illegible]

[illegible] ($Cl_d$): [illegible] ($Cl_d$) [illegible] 0.02~0.53%[illegible], [illegible] 0.08%[illegible]

[illegible] ($As_d$): [illegible] ($As_d$) [illegible] $1\sim5\times10^{--6}$ [illegible], [illegible] $2.83\times10^{--6}$,[illegible]

[illegible] ($F_d$):[illegible] ($F_d$)[illegible] 42~454ug/g [illegible], [illegible] 174~420ug/g,[illegible] 300ug/g[illegible], 28 [illegible]

[illegible],[illegible],[illegible], [illegible],[illegible],[illegible]

### 2.2.5.3 [illegible]

[illegible]41 [illegible], [illegible],[illegible],[illegible]

### 2.2.5.4 [illegible]

[illegible]

## 2.2.6 [illegible]

### 2.2.6.1 [illegible]

[illegible], [illegible] (0.0~0. 19m$^3$/t),[illegible]([illegible]2-2-6)[illegible],[illegible] (AQ 1018__2006), [illegible] 3[illegible]5[illegible]6[illegible]7 [illegible] 10 [illegible], [illegible], [illegible] 0.22 m$^3$/t, [illegible] 5.6 m$^3$/min[illegible], [illegible],[illegible],[illegible],[illegible]

[illegible] (0~0. 19m$^3$/t), [illegible]; [illegible]I~[illegible];[illegible]—[illegible],[illegible];[illegible];[illegible]; [illegible], [illegible],[illegible]

[illegible] 2-2-6 [illegible]

| [illegible] | [illegible] | [illegible] (m$^3$/t) | [illegible] |
|---|---|---|---|
| 3 | 15 | 0~0.001 | ZK492 [illegible] 0.001,[illegible] 0.00[illegible] |
| 5 | 12 | 0~0.003 | [illegible] ZK492 [illegible] ZK514 [illegible] ZK5010 [illegible] 0001~0.003, [illegible] 0.00[illegible] |
| 6 | 6 | 0~0.083 | [illegible] 0.018[illegible] |
| 7 | 25 | 0~0.019 | [illegible] ZK493 [illegible] ZK495 [illegible] ZK5010 [illegible] 0.005~0.019, [illegible] 0.00[illegible] |
| 8 | 1 | 0 | |
| 9 | 1 | 0 | |
| 10 | 15 | 0~0.014 | [illegible] ZK533 [illegible] 0.014,[illegible] 0.00[illegible] |
| 11 | 1 | 0 | |
| 12 | 5 | 0~0.171 | [illegible] 0.058[illegible] |
| 13 | 8 | 0~0.011 | [illegible] ZK501 [illegible] ZK495 [illegible] 0.004 [illegible] 0.011, [illegible] 0.00[illegible] |
| 14 | 9 | 0~0.03 | [illegible] ZK501 [illegible] ZK533 [illegible] 0.007 [illegible] 0.03t, [illegible] 0.00[illegible] |
| 15 | 15 | 0~0.19 | [illegible] ZK513 [illegible] ZK514 [illegible] ZK5113 [illegible] 0.006~0. 19t, [illegible] 0.00[illegible] |
| 16 | 1 | 0.022 | |
| 18 | 1 | 0 | |
| 19 | 2 | 0 | |
| 20 | 2 | 0 | |
| 29 | 1 | 0.006 | |
| | | | |

### 2.2.6.2 [illegible]

[illegible] 55~95%[illegible],[illegible] 50% ,[illegible] 300mm [illegible],[illegible]

[illegible](I) [illegible]([illegible])[illegible],[illegible]

## 2.3 [illegible]

### 2.3.1 [illegible]

#### 2.3.1.1 [illegible]

[illegible] 4 [illegible],[illegible],[illegible]

[illegible]

(1) [illegible]

[illegible]+546.0m[illegible],[illegible],[illegible],[illegible]10[illegible]180°,[illegible]13.5°,[illegible]1253m,[illegible]5.2m,[illegible]4.0m,[illegible]19.0m$^2$,[illegible],[illegible],[illegible]10[illegible],[illegible],[illegible],[illegible]

(2) [illegible]

[illegible]+546.0m, [illegible]7[illegible], [illegible]180°,[illegible]5.5°,[illegible]2499m, [illegible]5.6m,[illegible]4.2m,[illegible]20.2m2, [illegible],[illegible]

[illegible],[illegible],[illegible],[illegible], [illegible]400m[illegible], [illegible],[illegible],[illegible]10[illegible],[illegible],[illegible]1159m[illegible]

(3) [illegible]

[illegible]303[illegible], [illegible]560m[illegible],[illegible]+250m[illegible],[illegible]([illegible])[illegible]+546.0m ,[illegible]+250m,[illegible]296m,[illegible]7.0m, [illegible]38.5m$^2$, [illegible], [illegible],[illegible],[illegible]

(4) [illegible]

[illegible]+546.0m,[illegible]+250m,[illegible]296m,[illegible]7.0m,[illegible]38.5m2 ,[illegible],[illegible],[illegible],[illegible],[illegible]

### 2.3.1.2 [illegible]

[illegible],[illegible]:

[illegible]: [illegible] 3 [illegible]5 [illegible]6 [illegible]7 [illegible]10 [illegible], [illegible] 7 [illegible], 7 [illegible] +315m[illegible],[illegible]

[illegible]: [illegible] 12 [illegible]13 [illegible]14 [illegible]15 [illegible]16 [illegible], [illegible] 15 [illegible],[illegible] +200m[illegible]

[illegible]:[illegible] 18 [illegible],[illegible] 25 [illegible],[illegible]-150m[illegible]

[illegible]:[illegible]

### 2.3.1.3 [illegible]

(1) [illegible]

[illegible], [illegible] 6°, [illegible] 3°~15°, [illegible], [illegible]

[illegible],[illegible],[illegible]:

[illegible] 29000 [illegible],[illegible],[illegible]

[illegible] 89000 [illegible],[illegible]

(2) [illegible]

① [illegible]

[illegible],[illegible],[illegible],[illegible]

② [illegible]

[illegible],[illegible],[illegible],[illegible], [illegible] 3 [illegible] 5 [illegible] 6 [illegible] 7 [illegible] 10 [illegible], [illegible],[illegible]:

3 [illegible] 5 [illegible] 52~82m,[illegible],[illegible],[illegible] 3 [illegible],[illegible],[illegible]([illegible]), [illegible]([illegible]), [illegible]

5 [illegible] 6 [illegible] 7~10m; 6 [illegible] 7 [illegible] 17~26m[illegible]5 [illegible]6 [illegible]7 [illegible],[illegible], 5 [illegible]6 [illegible]7 [illegible],[illegible] 5 [illegible], [illegible] 5 [illegible]6 [illegible];[illegible] 7 [illegible],[illegible] 7 [illegible] 5 [illegible]6 [illegible]7 [illegible]

7 [illegible] 10 [illegible] 18~53m,[illegible] 10 [illegible], [illegible], [illegible]([illegible]), [illegible]([illegible]), [illegible]

[illegible] 3 [illegible] 5 [illegible] 6 [illegible] 7 [illegible], [illegible], [illegible] 3 [illegible] 5 [illegible] 7 [illegible]

(3)[illegible]

[illegible],[illegible],[illegible],[illegible] 250mm [illegible], [illegible] 150mm [illegible]

(4)[illegible]

[illegible],[illegible] 6°,[illegible] 5.8°[illegible],[illegible],[illegible] 9°[illegible]

(5)[illegible]

[illegible] 50m [illegible], [illegible]([illegible]) [illegible] 70°[illegible], [illegible]

### 2.3.1.4 [illegible]

(1) [illegible]

[illegible], [illegible],[illegible],[illegible]: [illegible] (3 [illegible], 5[illegible]6 [illegible], 7 [illegible], 10 [illegible]); [illegible] (3 [illegible], 5[illegible]6 [illegible], 7 [illegible], 10 [illegible]); [illegible] (3 [illegible]5 [illegible]7 [illegible] 10 [illegible])[illegible]

(2) [illegible]

[illegible],[illegible],[illegible],[illegible],[illegible]

(3) [illegible]

[illegible],[illegible],[illegible],[illegible],[illegible]

### 2.3.1.5 [illegible]

(1) [illegible]

① [illegible]

[illegible], [illegible] ([illegible])[illegible],[illegible],[illegible]

[illegible], [illegible] 3 [illegible]5 [illegible]6 [illegible]7 [illegible]10 [illegible],[illegible] 7 [illegible] 3 [illegible], 5[illegible]6 [illegible], 7 [illegible]

[illegible] 3 [illegible], 5[illegible]6 [illegible], 7 [illegible],[illegible],[illegible] ZK487~ZK493 [illegible] 3[illegible]5[illegible]6 [illegible],[illegible],[illegible] 7 [illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

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## 2.3.1.6 □□□□□□

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[illegible]→[illegible]→[illegible]→[illegible]→[illegible]

② [illegible]

[illegible]

a [illegible]

[illegible]→[illegible]→[illegible]→ [illegible]([illegible])[illegible]

[illegible],[illegible]

b[illegible]

[illegible], [illegible];[illegible],[illegible],[illegible],[illegible]

(2) [illegible]

[illegible]→ [illegible]→[illegible]→ [illegible]

[illegible]→[illegible]→ [illegible]→ [illegible]→[illegible]

(3) [illegible]

[illegible],[illegible], [illegible], [illegible]

## 2.3.1.7 [illegible]

(1) [illegible]

[illegible],[illegible] 3[illegible]5[illegible]6 [illegible],[illegible], [illegible]

[illegible] 7 [illegible],[illegible] 11. 18m,[illegible]

[illegible]([illegible],[illegible])[illegible]([illegible] 1 [illegible])[illegible],[illegible]

(2)[illegible]

① [illegible]

[illegible],[illegible],[illegible],[illegible],[illegible] 3 [illegible] 5 [illegible] 6 [illegible] 7 [illegible], [illegible] 3 [illegible] 5 [illegible] 6 [illegible],[illegible] 2 [illegible],[illegible] 3 [illegible] 7 [illegible];[illegible] 3 [illegible],[illegible] 3 [illegible] 5 [illegible] 7 [illegible]

② [illegible]

① [illegible]

[illegible],[illegible],[illegible] 300m[illegible]

② [illegible]:

[illegible] 3 [illegible] 1.18~3.06m,[illegible] 2. 17m; 5 [illegible] 1.2~2.7m,[illegible] 2.26m;6 [illegible] 1.5~3.24m , [illegible] 2.42m;7 [illegible] 7.7~17.92m , [illegible] 11. 18m; 10 [illegible] 2.29~8.41m,[illegible] 6.08m[illegible]3 [illegible] 5 [illegible] 6 [illegible], 7 [illegible] 3 [illegible] 5 [illegible] 6 [illegible],[illegible],[illegible] 7 [illegible],[illegible],[illegible] 7 [illegible] 3.2m[illegible]

③ [illegible] (3 [illegible] 5 [illegible] 6 [illegible])[illegible] a [illegible]

[illegible]“ [illegible]·[illegible]”[illegible], [illegible], [illegible], [illegible] 3 [illegible], [illegible] 0.95m,[illegible]: 3×3×0.95 =8.55m[illegible]

b [illegible]

[illegible] 330 [illegible],[illegible] 85%,[illegible] 3 [illegible] 5 [illegible] 6 [illegible]

Lz=8.55×330×85% =2400m[illegible]

④ [illegible] (7 [illegible])[illegible]

[illegible] 1.25 [illegible], [illegible], [illegible], [illegible], [illegible] 2.5 [illegible],[illegible] 0.95m,[illegible] 80%[illegible] 1880m[illegible]

③ [illegible]

[illegible]

$Q_{[illegible]}=L·l·M·V·K$

[illegible]: L——[illegible], 3 [illegible] 5 [illegible] 6 [illegible] 2400m , 7 [illegible] 1880m;

l——[illegible], 300m;

M——[illegible], 3 [illegible] 2.17 m [illegible] 5 [illegible] 2.26 m [illegible] 6 [illegible] 2.42m [illegible] 7 [illegible] 11. 18m;

V——[illegible], 3 [illegible] 1.44 $t/m^3$ [illegible] 5 [illegible] 1.40 $t/m^3$ [illegible] 6 [illegible] 1.42 $t/m^3$ [illegible] 7 [illegible] 1.37 $t/m^3$;

K——[illegible],[illegible] 0.93~0.95%[illegible]

[illegible] 2-3-1[illegible]

**[illegible] 2-3-1** [illegible]

| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | | | | [illegible] | [illegible] |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [illegible] (m) | [illegible] (m) | [illegible] (m) | [illegible] ($t/m^3$) | [illegible] (%) | | |
| 1 | 113 | 11303 | [illegible] | 300 | 2.17 | 2400 | 1.44 | 95 | 214 | |
| 2 | 115 | 11501 | [illegible] | 300 | 2.26 | 2400 | 1.40 | 95 | 216 | |
| 3 | 117 | 11702 | [illegible] | 300 | [illegible] 3.2 [illegible] (7.98) | 1880 | 1.37 | 83 | 722 | |
| [illegible] | | | | | | | | | 1154 | [illegible] |

### 2.3.1.8 [illegible]

[illegible],[illegible]:[illegible],[illegible],[illegible],[illegible]

### 2.3.1.9 [illegible]

(1) [illegible]

[illegible],[illegible],[illegible],[illegible]([illegible] 50km) , [illegible], [illegible], [illegible] + [illegible], [illegible], [illegible] 4 [illegible] 2000 $m^3$ [illegible]

水池中,蓄水池容 8000m³。

矿井水排水管自工业场地约 710m,向北经煤场东侧架空铺设 550m 左右,再向北采用暗管(管顶覆土) 至 160m处事故水池附近,接入五彩湾工业园区煤化工工业用水管道,管道平均坡度 i≈3‰。输水管道采用钢管 DN600,输水管道线路全长 57km,埋深 2m 以下。

(2)管道

本项目疏干水量平均 103.25m³/h,平均每天产生 2478m³/d。煤炭企业矿井水的综合利用和排放管理要求。按照管线损耗量为 5%计,用于洒水抑尘的剩余水量 2354. 1m³/d,通过管道输送到五彩湾园区用于煤化工企业生产用水。

#### 2.3.1.10 主要设备配置规模

主要设备配置规模见表 2-3-2。

表 **2-3-2** 主要设备配置规模表

| 设备分类 | 设备名称 | 型号 | 主要技术参数 |
|---|---|---|---|
| 综采<br>工作面 | 采煤机 | 双滚筒电牵引采煤机 | 采高 1.3~2.6m , 截深 800mm , 滚筒直径 1.3m ,装机功率 500kW,电压 1140V |
| | 刮板输送机及转载 | 可弯曲刮板输送机 | 输送能力为 800t/h,中部槽宽 764mm,功率 2×160kW,电压 1140V |
| | 液压支架 | 掩护支架 | 支撑高度 1.2m~2.8m,中心距 1.5m, 工作阻力 0.64MPa |
| | 转载机 | 转载机 | 输送能力为 800t/h,功率 75kW,电压 1140V |
| | 破碎机 | 破碎机 | 输送能力为 800t/h,功率 75kW,电压 1140V |
| | 可伸缩带式输送机 输送 | 可伸缩胶带式输送机 机 | 运输距离 1250m,带宽 1000mm,运输能力 800t/h,功率 2×90kW,电压 660V |
| 提升系统 | 胶带机 | 钢绳芯胶带 | 带宽 B=1.2m , 运量 Q=1500t/h , 带速 v=3. 15m/s |
| | 辅助车 | 14t 防爆蓄电池机车 1 台 | 牵引力 26.68kN,运行速度 12.87km/h |
| 通风 | 通风机 | FBCDZ-10-No28<br>型矿用防爆对旋轴流 | 590r/min 2 台 |
| | 排水泵 | 卧式多级 | 初期: 10kV 280kW 高压电机 2 台(一用一备)<br>后期: 换 10kV 450kW 高压电机 2 台(一用一备) |

| [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|
| [illegible] | [illegible] | SA-220A [illegible] | [illegible],[illegible],[illegible]<br>[illegible]: [illegible]: 34.5m$^3$/min; [illegible]: 0.85MPa |
| [illegible] | [illegible] | MD280-65X9 [illegible] | 3 [illegible],[illegible] 1 [illegible],[illegible] 1 [illegible],<br>[illegible] 1 [illegible] |
|  | [illegible] | YB2560S1-4 | 10kV 900kW 1480r/min [illegible] |

## 2.3.2 [illegible]

### 2.3.2.1 [illegible]

[illegible] 12.0Mt/a,[illegible],[illegible],[illegible]

[illegible],[illegible],[illegible]

(1) [illegible]

[illegible] 150mm ([illegible]) [illegible] 40mm ([illegible]) [illegible],[illegible] +150mm [illegible], [illegible]-150mm [illegible] 150-40mm [illegible] 40-0mm [illegible],[illegible] 13mm [illegible] 40-13mm [illegible],[illegible]-13mm [illegible]

[illegible] 40-0mm [illegible],

150-40mm [illegible]([illegible]), [illegible],[illegible]-40mm [illegible]

(2) [illegible]

150-13mm [illegible] 3mm [illegible],[illegible] 150-13mm [illegible],[illegible]([illegible]= 30mm [illegible]= 1.5mm) [illegible] (150-30mm) [illegible] (30~1.5mm) [illegible]-40mm [illegible],[illegible]

(+80mm)[illegible] (80-30mm); 30~1.5mm [illegible],[illegible] Φ1.5mm [illegible],[illegible]

(3)[illegible]

[illegible]-3mm [illegible],[illegible] (3-0.25mm [illegible])

[illegible];[illegible] (_0.25mm [illegible]) [illegible],[illegible], [illegible], [illegible],[illegible],[illegible]

(4)[illegible]

[illegible],[illegible],[illegible],[illegible],[illegible]

### 2.3.2.2 [illegible]

[illegible]:

(1)[illegible] (+80mm): Qnet,ar ≥4600 kcal/kg,[illegible];

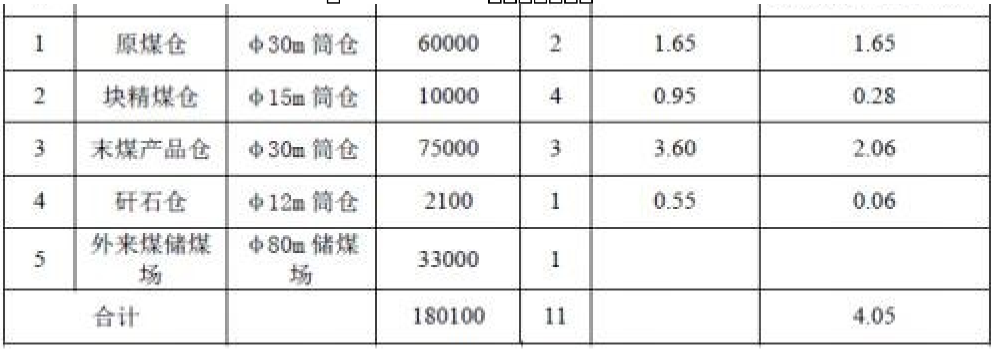
(2) [illegible] (80~30mm): Qnet,ar ≥ 4600 kcal/kg,[illegible];

(3) [illegible] (40~0mm): Qnet,ar ≥4600 kcal/kg,[illegible];

(4) [illegible] (40~0mm): Qnet,ar ≥3400 kcal/kg,[illegible],[illegible] 3700kcal/kg [illegible]

[illegible] 2-3-3[illegible]

[illegible] **2-3-3** [illegible]



| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | 原煤仓 | Φ30m 筒仓 | 60000 | 2 | 1.65 | 1.65 |
| 2 | 块精煤仓 | Φ15m 筒仓 | 10000 | 4 | 0.95 | 0.28 |
| 3 | 末煤产品仓 | Φ30m 筒仓 | 75000 | 3 | 3.60 | 2.06 |
| 4 | 矸石仓 | Φ12m 筒仓 | 2100 | 1 | 0.55 | 0.06 |
| 5 | 外来煤储煤场 | Φ80m 储煤场 | 33000 | 1 | | |
| 合计 | | | 180100 | 11 | | 4.05 |

### 2.3.2.3 □□□

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**□ 2-3-4** □□□□□□□

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|---|---|---|---|---|
| — | □□□□□□ | | | |
| 1 | __□□□□□□ | 3685 □□□□□□Φ=150/40mm | 2 | □□□□ |
| 2 | □□□□□□ | Q=300t/h□□□□□-300mm□□□□□-150mm | 1 | □□ |
| 3 | □□□□□□□ | 3680 □□□□□□□Φ=13mm | 5 | □□□□ |
| 4 | □□□□□□ | Q=500t/h□□□□□≤100mm□□□□□≤40mm | 1 | □□ |
| □ | □□□□□□ | | | |
| 1 | □□□□□ | 3084 □□□□□□Φ=3mm | 4 | □□□□ |
| 2 | □□□□□ | B=7.9m □□□□□□□ | 2 | □□ |
| 3 | □□□□□□□ | 3073 □□□□□□□□□□=30mm□□□□=<br>1 5 | 4 | □□□□ |
| 4 | □□□□□□ | Q=400t/h□□□□□150~0mm□□□□□≤30mm | 2 | □□ |
| 5 | □□□□□□□ | 3048 □□□□□□Φ=1.5mm | 2 | □□□□ |
| 6 | □□□□□ | Φ1400□□□□□30~1.5mm | 4 | □□ |
| 7 | □□□ | 1219×2972mm□□□□ | 2 | □□□□ |
| 8 | □□□□□ | Φ350mm12 □/□ | 2 | □□ |
| 9 | □□□□□□ | □□□B=1500mm□□=0.35mm□□□<br>60°□ R=2000mm | 4 | □□□□ |
| 10 | □□□□□ | Φ1200 | 2 | □□ |
| 11 | □□□□□□□ | 2461 □□□□□□Φ=80mm | 1 | □□□□ |
| □ | □□□□□□□□ | | | |
| 1 | □□□ | 2000×2000 □□□F=500m$^2$ | 5 | □□ |
| 2 | □□□ | Φ35 □□□□□ | 2 | □□ |

## 2.3.3 □□□□□□□□□□□□□□

### 2.3.3.1 □□□□

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10%,□□□□□5%□□□□□□□

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□□□□□□ 196.7×10$^4$m$^3$□□□□□□□, □□:□□□□□□□□ 576.57m$^3$/d ,□ 21.04×10$^4$m$^3$/a (□ 365d □□);□□□□□□□□□□ 5323.09m$^3$/d (□□ 5237.21m$^3$/d□□□ 5408.89m$^3$/d),□ 175.66×10$^4$m$^3$/a (□330d □□)□□□□□□□,□□:□□□□□□□□□ 2354. 1m$^3$/d,□ 77.69×10$^4$m$^3$/a,□□□□□□□□;□□□□□□□□□□□□□ 3545.56m$^3$/d (□□ 3459.68m$^3$/d□□□ 3631.36m$^3$/d),□ 119.01×10$^4$m$^3$/a, □□□□□□□□□□□□□□□□□□□□□ 2968.99m$^3$/d (□□2883. 11m$^3$/d□□□ 3054.79m$^3$/d),□ 97.97×10$^4$m$^3$/a,□□□□□□□□□□□□□□□□

## [illegible]2-3-5 [illegible] ([illegible]: m$^3$/d)

| [illegible] | | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|---|---|---|---|
| [illegible] | [illegible] | [illegible] | 1 | [illegible] | 37.44 | 35.57 | 1.87 | [illegible] |
| | | | 2 | [illegible] | 105.52 | 100.24 | 5.28 | |
| | | | 3 | [illegible] | 62.4 | 53.04 | 9.36 | |
| | | | 4 | [illegible] | 160.1 | 152.1 | 8 | |
| | | | 5 | [illegible] | 182.28 | 173.17 | 9.11 | |
| | | | | [illegible] | 547.74 | 514.12 | 33.62 | |
| | [illegible] | [illegible] | 6 | [illegible] | 1473.92 | 0 | 1473.92 | [illegible] |
| | | | 7 | [illegible] | 19428.32 | 19428.32 | 0 | |
| | | | | [illegible] | 20902.24 | 19428.32 | 1473.92 | |
| | | [illegible] | 8 | [illegible] | 291.75 | 0 | 291.75 | [illegible] |
| | | | 9 | [illegible] | 494.7 | 494.7 | 0 | |
| | | | | [illegible] | 786.45 | 494.7 | 291.75 | |
| | | | 10 | [illegible] | 29.18 | 0 | 29.18 | |
| | | | | [illegible] | 815.63 | 494.7 | 320.93 | |
| | | [illegible] | | | 21717.87 | 19923.02 | 1794.85 | |
| | [illegible] | [illegible] | 11 | [illegible] | 214.24 | 21.6 | 192.64 | [illegible] |
| | | | 12 | [illegible] | 21.6 | | 21.6 | [illegible] |
| | | | 13 | [illegible] | 102.5 | | 102.5 | [illegible] |
| | | | | [illegible] | 338.34 | 21.6 | 316.74 | |
| | | | 14 | [illegible] | 514.12 | 488.41 | 25.71 | [illegible] |
| | | | 15 | [illegible] | 1020.8 | 969.76 | 51.04 | [illegible] |
| | | | | [illegible] | 1534.92 | 1458.17 | 76.75 | |
| | | | | [illegible] | 1873.26 | 1479.77 | 393.49 | |
| | | [illegible] | 16 | [illegible] | 43.22 | | 43.22 | [illegible] |
| | | | | [illegible] | 106.56 | | 106.56 | |
| | | | | [illegible] | 149.78 | | 149.78 | |
| | | [illegible] | 17 | [illegible] | 48.81 | | 48.81 | |
| | | [illegible] | | | 2071.85 | 1479.77 | 592.08 | |
| | [illegible] | [illegible] | | [illegible] | 23789.72 | 21402.79 | 2386.93 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| [illegible] | [illegible] | [illegible] | 18 | [illegible] | 1314.20 | 118.28 | 1195.92 | [illegible] |
| | | | 19 | [illegible] | 3008.40 | 902.52 | 2105.88 | [illegible] |
| | | | [illegible] | | 4322.60 | 1020.80 | 3301.80 | |
| [illegible] | | [illegible] | [illegible] | | 28112.32 | 22423.59 | 5688.73 | |
| [illegible] | | | | | 28660.06 | 22937.71 | 5722.35 | |
| [illegible] | | [illegible] | 20 | [illegible] | 2354.10 | 2354.1 | | |
| [illegible] | | | 21 | [illegible] | 3368.25 | 3368.25 | | [illegible]: 3545.56 |
| [illegible] | | | | | 5722.35 | 5722.35 | | [illegible]: 5899.66 |

[illegible] 2-3-6 [illegible] ([illegible]: m$^3$/d)

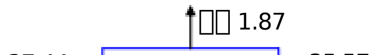
| [illegible] | | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|---|---|---|---|
| [illegible] | | [illegible] | 1 | [illegible] | 37.44 | 35.57 | 1.87 | [illegible] |
| | | | 2 | [illegible] | 105.52 | 100.24 | 5.28 | |
| | | | 3 | [illegible] | 62.4 | 53.04 | 9.36 | |
| | | | 4 | [illegible] | 160.1 | 152.1 | 8 | |
| | | | 5 | [illegible] | 182.28 | 173.17 | 9.11 | |
| | | | [illegible] | | 547.74 | 514.12 | 33.62 | |
| | | [illegible] | 6 | [illegible] | 1473.92 | | 1473.92 | [illegible] |
| | | | 7 | [illegible] | 19428.32 | 19428.32 | | |
| | | | [illegible] | | 20902.24 | 19428.32 | 1473.92 | |
| | | [illegible] | 8 | [illegible] | 291.75 | | 291.75 | [illegible] |
| | | | 9 | [illegible] | 494.7 | 494.7 | | |
| | | | [illegible] | | 786.45 | 494.7 | 291.75 | |
| | | | 10 | [illegible] | 29.18 | | 29.18 | |
| | | | [illegible] | | 815.63 | 494.7 | 320.93 | |
| | | [illegible] | | | 21717.87 | 19923.02 | 1794.85 | |
| | | [illegible] | 11 | [illegible] | 112 | 11.2 | 100.8 | [illegible] |
| | | | 12 | [illegible] | 11.2 | | 11.2 | [illegible] |
| | | | 13 | [illegible] | 25 | | 25 | [illegible] |
| | | | [illegible] | | 148.2 | 11.2 | 137 | |
| | | | 14 | [illegible] | 514.12 | 488.41 | 25.71 | [illegible] |
| | | | 15 | [illegible] | 1020.8 | 969.76 | 51.04 | [illegible] |
| | | | [illegible] | | 1534.92 | 1458.17 | 76.75 | |
| | | | [illegible] | | 1683.12 | 1469.37 | 213.75 | |
| | | [illegible] | 16 | [illegible] | 43.22 | | 43.22 | [illegible] |
| | | | | [illegible] | 213.11 | | 213.11 | |
| | | | [illegible] | | 256.33 | 0 | 256.33 | |
| | | [illegible] | 17 | [illegible] | 40.45 | | 40.45 | |
| | | [illegible] | | | 1979.9 | 1469.37 | 510.53 | |
| | [illegible] | [illegible] | [illegible] | | 23697.77 | 21392.39 | 2305.38 | |

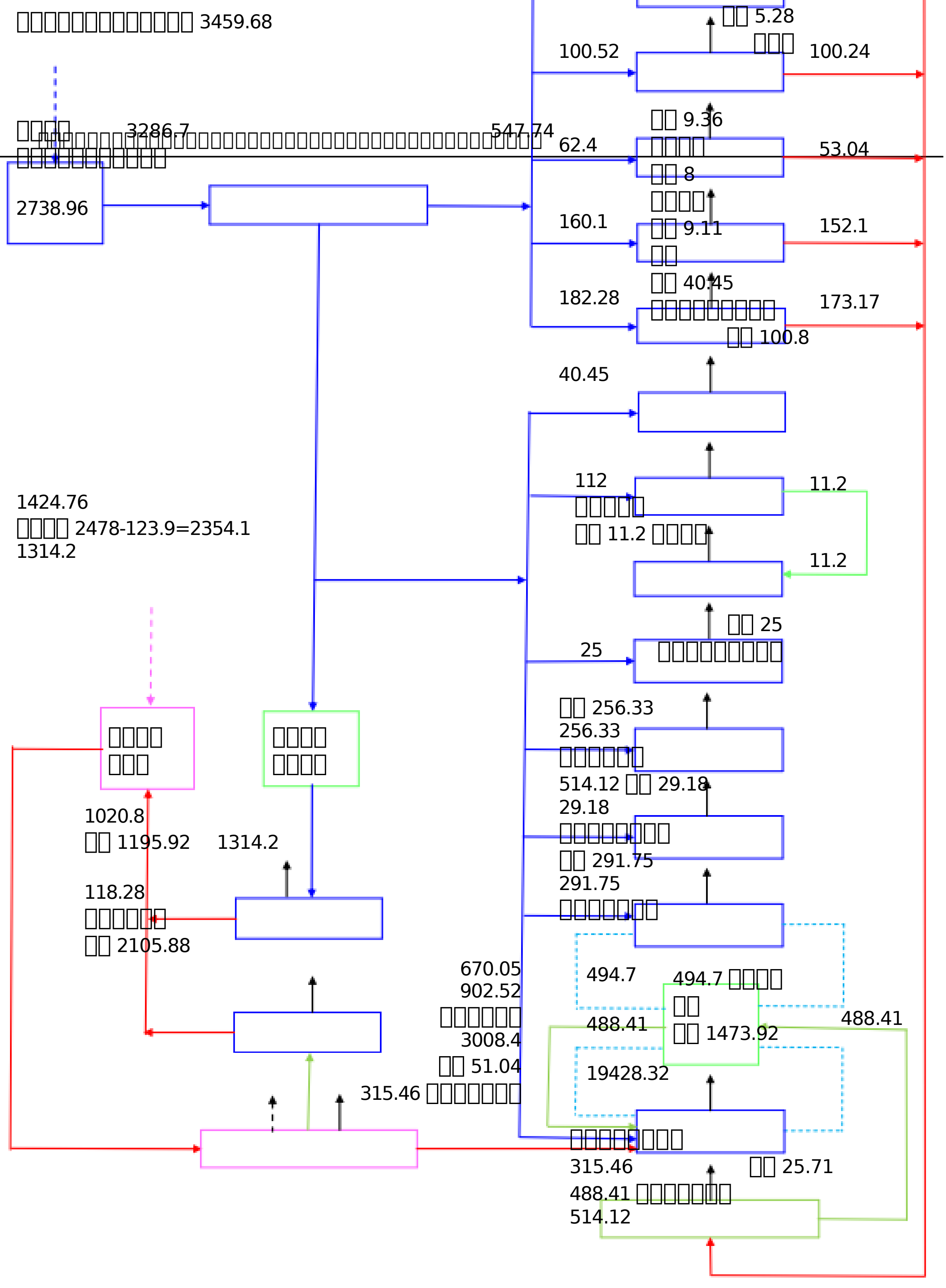
| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| [illegible] | | [illegible] | 18 | [illegible] | 1314.2 | 118.28 | 1195.92 | [illegible] |
| | | | 19 | [illegible] | 3008.4 | 902.52 | 2105.88 | [illegible] |
| | | | [illegible] | | 4322.6 | 1020.8 | 3301.8 | |
| [illegible] | | [illegible] | [illegible] | | 28020.37 | 22413.19 | 5607.18 | |
| [illegible] | | | | | 28568.11 | 22927.31 | 5640.8 | |
| [illegible] | | [illegible] | 20 | [illegible] | 2354.1 | 2354.1 | | |
| [illegible] | | | 21 | [illegible] | 3286.7 | 3286.7 | | [illegible]: 3459.68 |
| [illegible] | | | | | 5640.8 | 5640.8 | | [illegible]: 5813.78 |

### [illegible] 2-3-7 [illegible] ([illegible]: $m^3/d$)

| [illegible] | | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|---|---|---|---|
| [illegible] | | [illegible] | 1 | [illegible] | 37.44 | 35.57 | 1.87 | [illegible] |
| | | | 2 | [illegible] | 105.52 | 100.24 | 5.28 | |
| | | | 3 | [illegible] | 62.4 | 53.04 | 9.36 | |
| | | | 4 | [illegible] | 160.1 | 152.1 | 8 | |
| | | | 5 | [illegible] | 182.28 | 173.17 | 9.11 | |
| | | | [illegible] | | 547.74 | 514.12 | 33.62 | |
| | | [illegible] | 6 | [illegible] | 1473.92 | | 1473.92 | [illegible] |
| | | | 7 | [illegible] | 19428.32 | 19428.32 | | |
| | | | [illegible] | | 20902.24 | 19428.32 | 1473.92 | |
| | | [illegible] | 8 | [illegible] | 291.75 | | 291.75 | [illegible] |
| | | | 9 | [illegible] | 494.7 | 494.7 | | |
| | | | [illegible] | | 786.45 | 494.7 | 291.75 | |
| | | | 10 | [illegible] | 29.18 | | 29.18 | |
| | | | [illegible] | | 815.63 | 494.7 | 320.93 | |
| | | [illegible] | | | 21717.87 | 19923.02 | 1794.85 | |
| | | [illegible] | 11 | [illegible] | 316.48 | 32 | 284.48 | [illegible] |
| | | | 12 | [illegible] | 32 | | 32 | [illegible] |
| | | | 13 | [illegible] | 180 | | 180 | [illegible] |
| | | | [illegible] | | 528.48 | 32 | 496.48 | |
| | | | 14 | [illegible] | 514.12 | 488.41 | 25.71 | [illegible] |
| | | | 15 | [illegible] | 1020.8 | 969.76 | 51.04 | [illegible] |
| | | | [illegible] | | 1534.92 | 1458.17 | 76.75 | |
| | | | [illegible] | | 2063.4 | 1490.17 | 573.23 | |
| | | [illegible] | 16 | [illegible] | 43.22 | | 43.22 | [illegible] |
| | | | | [illegible] | | | | |
| | | | [illegible] | | 43.22 | | 43.22 | |
| | | [illegible] | 17 | [illegible] | 57.17 | | 57.17 | |
| | | [illegible] | | | 2163.79 | 1490.17 | 673.62 | |
| | [illegible] | [illegible] | [illegible] | | 23881.66 | 21413.19 | 2468.47 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| [illegible] | | [illegible] | 18 | [illegible] | 1314.2 | 118.28 | 1195.92 | [illegible] |
| | | | 19 | [illegible] | 3008.4 | 902.52 | 2105.88 | [illegible] |
| | | | [illegible] | | 4322.6 | 1020.8 | 3301.8 | |
| [illegible] | | [illegible] | [illegible] | | 28204.26 | 22433.99 | 5770.27 | |
| [illegible] | | | | | 28752 | 22948.11 | 5803.89 | |
| [illegible] | | [illegible] | 20 | [illegible] | 2354.1 | 2354.1 | | |
| [illegible] | | | 21 | [illegible] | 3449.79 | 3449.79 | | [illegible]: 3631.36 |
| [illegible] | | | | | 5803.89 | 5803.89 | | [illegible]: 5985.46 |

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[illegible]
3286.7
[illegible]
2738.96
547.74
[illegible] 5.28
[illegible]
100.52
100.24
62.4
[illegible] 9.36
[illegible]
53.04
[illegible] 8
[illegible]
160.1
[illegible] 9.11
152.1
[illegible]
182.28
[illegible] 40.45
[illegible]
173.17
[illegible] 100.8
40.45
112
11.2
[illegible]
[illegible] 11.2 [illegible]
11.2
1424.76
[illegible] 2478-123.9=2354.1
1314.2
[illegible] 25
25
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible] 256.33
256.33
[illegible]
514.12 [illegible] 29.18
29.18
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1020.8
[illegible] 1195.92
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[illegible] 291.75
291.75
[illegible]
118.28
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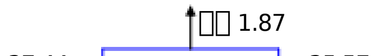
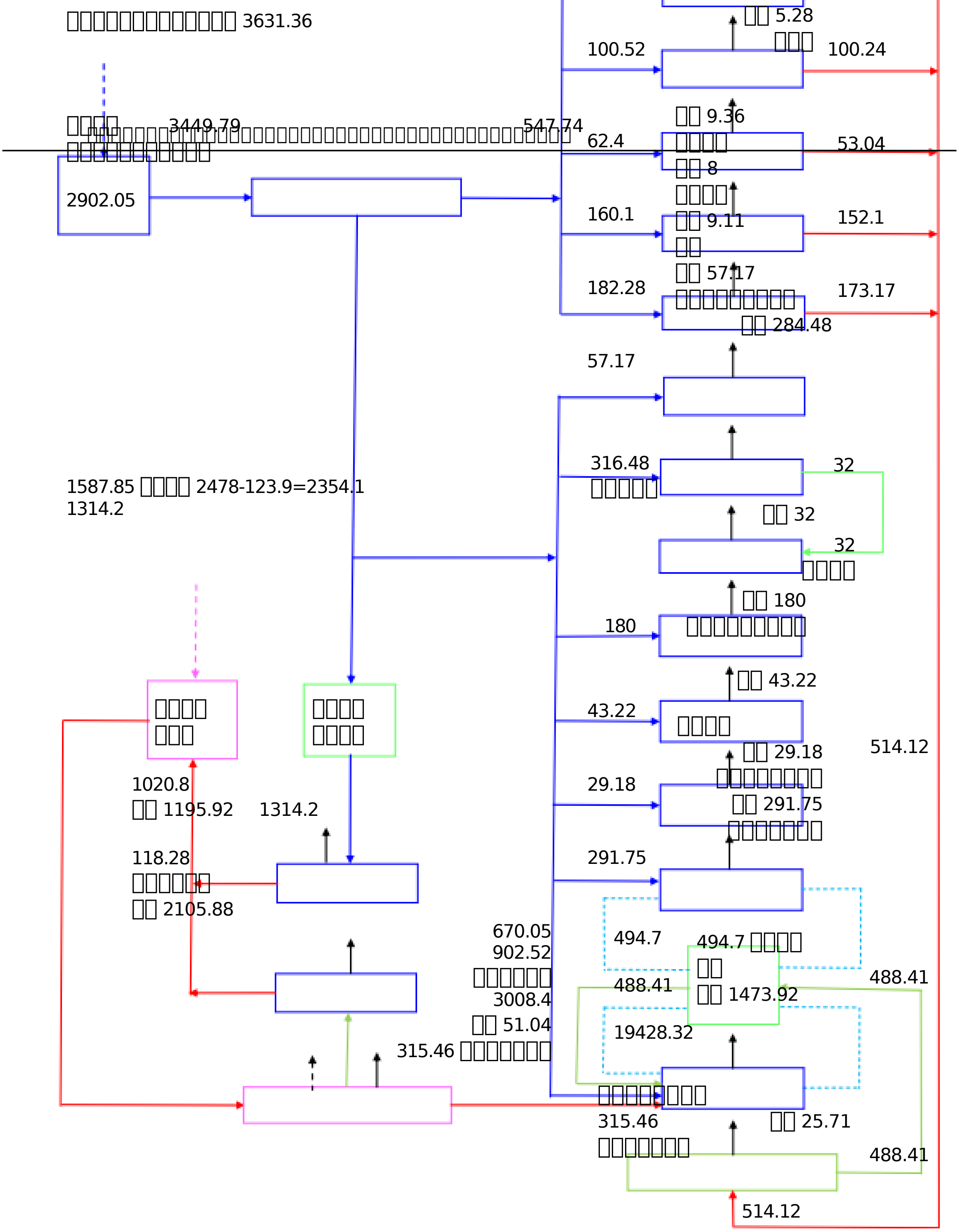
[illegible] 2105.88
670.05
902.52
[illegible]
3008.4
[illegible] 51.04
315.46 [illegible]
494.7
494.7 [illegible]
[illegible]
488.41
[illegible] 1473.92
488.41
19428.32
[illegible]
315.46
[illegible] 25.71
488.41 [illegible]
514.12

**[illegible] 2.3-1 [illegible] ([illegible]: m$^3$/d)**


[illegible] 1.87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[illegible] 3449.79
547.74
2902.05
100.52
[illegible] 5.28
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62.4
53.04
[illegible] 8
160.1
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152.1
[illegible] 57.17
182.28
173.17
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57.17
316.48
32
1587.85 [illegible] 2478-123.9=2354.1
1314.2
[illegible] 32
32
[illegible] 180
180
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43.22
514.12
[illegible] 29.18
29.18
[illegible] 291.75
291.75
1020.8
[illegible] 1195.92
1314.2
118.28
[illegible] 2105.88
670.05
902.52
3008.4
[illegible] 51.04
315.46
494.7
494.7
488.41
[illegible] 1473.92
488.41
19428.32
315.46
[illegible] 25.71
488.41
514.12

[illegible] **2.3-2 [illegible] ([illegible]: m$^3$/d)**

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|---|---|---|---|---|---|---|
| | | □□ | □□ | □□ | | |
| □□□□□ (m$^3$/d) | □□ | 2738.96 | 547.74 | 3286.70 | 2354.10 | 5640.80 |
| | □□ | 2902.05 | 547.74 | 3449.79 | 2354.10 | 5803.89 |
| | □□ | 2820.51 | 547.74 | 3368.25 | 2354.10 | 5722.35 |
| □□□□□ (10$^4$m3) | | 93.08 | 19.99 | 113.07 | 77.69 | 190.75 |
| □□□□ (m$^3$/d) | □□ | 2883.11 | 576.57 | 3459.68 | 2354.10 | 5813.78 |
| | □□ | 3054.79 | 576.57 | 3631.36 | 2354.10 | 5985.46 |
| | □□ | 2968.95 | 576.57 | 3545.52 | 2354.10 | 5899.62 |
| □□□□ (10$^4$m3) | | 97.97 | 21.04 | 119.01 | 77.69 | 196.7 |

□: ① □□□□□□□ 5% ,□□□□□□□□□□□□□□□□

② □□□□□□ 330d,□□□□□□ 365d,□□□□□□□□□□□□□

### (2)□□

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□□□□□□□□□□ 514. 12m$^3$/d,□□□□□□□□□□□□□□□□□□□□□□□□□□,□□□□□□□□□□□□□ 1 □,□□□ 35m$^3$/d,□□□□□□□□□□□,□□□□□□□□□,□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□(GB/T 18920＿2002) □□, □□□□□□□□□□□□□□□□□□□□, □□□□□□□, □□□□□□□□□, □□□□, □□□□□2.3-3 □□□□□□□□□□

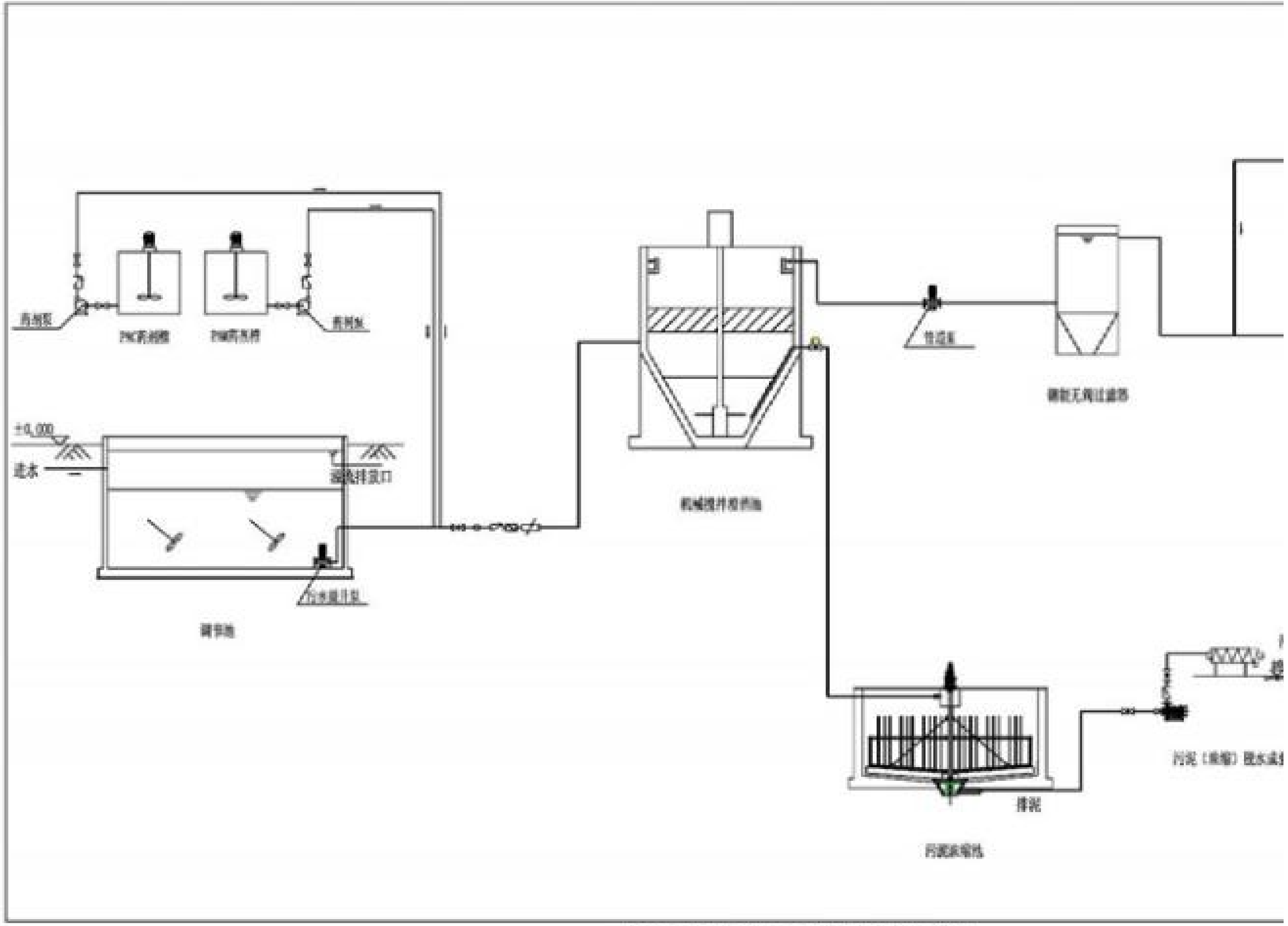
±0.000
进水
调节池
污水提升泵
机械搅拌澄清池
管道泵
排泥
污泥浓缩池

图2. 3-2矿井水处理工艺流程图

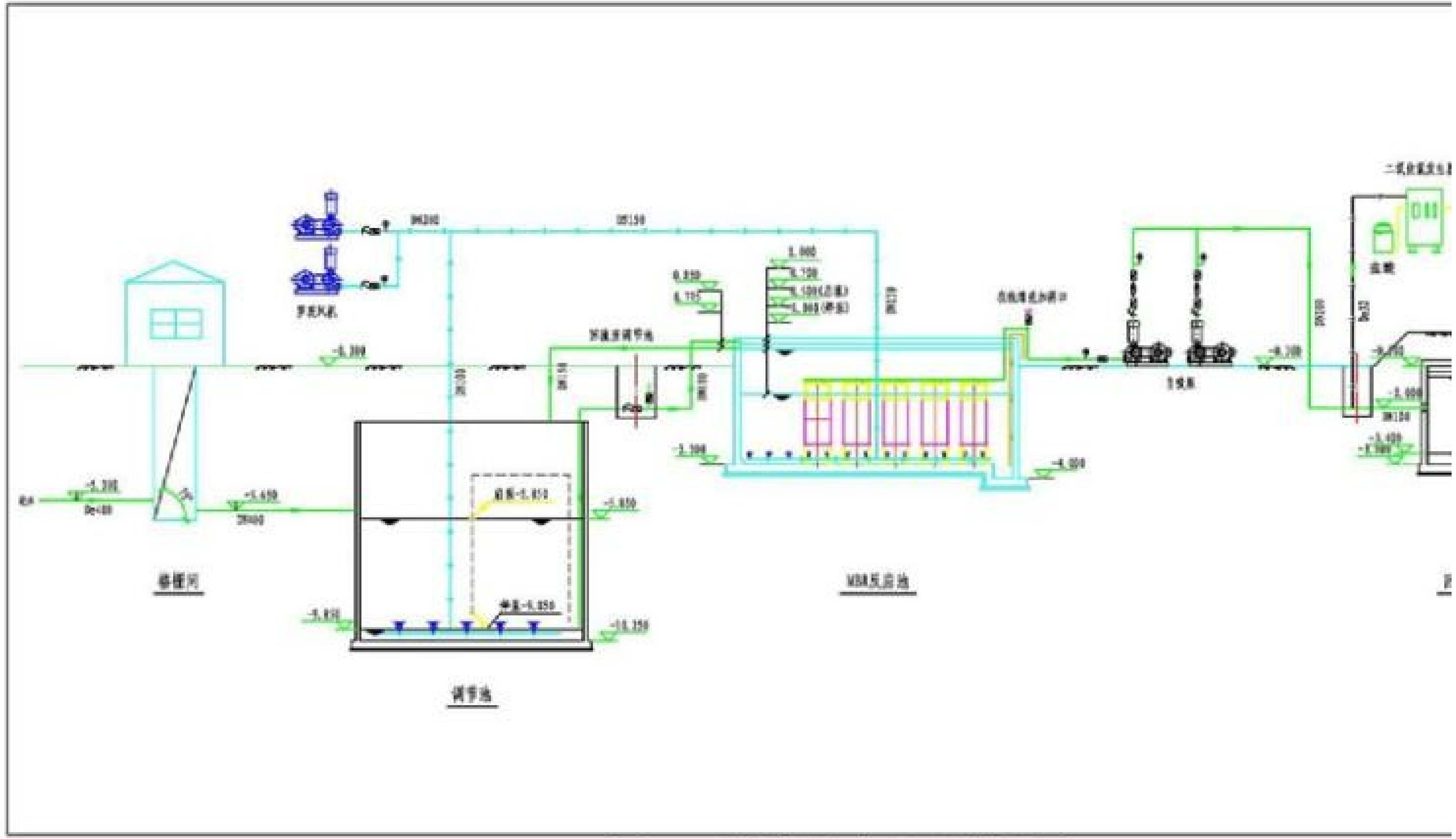
格栅间
罗茨风机
调节池
MBR反应池
盐酸

图2.3-3生活污水处理工艺流程图

#### 2.3.3.2 □□□□□

□□□□□□ 2×660MW □□□□□□□□ 2014 □ 8 □□□□□,□□□□□□□□□□,□□□□□□□□□,□□□□□□□□□,□□□□□□□□□□□□□,□□□□□□□ 125~80℃□□□□□□□□□□□□□□□□□□□□□□□□□,□□□□□□□□□

#### 2.3.3.3 □□

□□□□□□□□□□□□□□ 110kV □□□ 110kV □□□□, □□□□□ 56km ,□□□□□□ LGJ__185 □;□□□□□□□□□□ 220kV □□□ 110kV □□□□,□□□□□ LGJ__185,□□□□ 48km□□□□□□□□□□□, □□□□□□□□

### 2.3.4 □□□

□□□□□□□ (109 □ t/a) □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ □ 300 □□, □□□□□□□□□□□□□□,□□□□□□□□□,□□ 5hm$^2$ ,□□□□□□□□ 3~5 □□□□□□□□□□□□□□□□□□□□□□,□□□□□□□

## 2.4 □□□□□□□□□□

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### 2.4.1 □□□□□□□□□□□□□□□□□□□□

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□ “ □□□□□□□□□□□□□□□□□□□□□□ 98% □□□□□□□□□

80mg/m$^3$”[illegible]

[illegible] 25.3m [illegible],[illegible] 0.63m,[illegible] 1.41×10$^4$m$^3$/h,[illegible]“ [illegible] 98%[illegible] 80mg/m$^3$” [illegible] 80mg/m$^3$ [illegible],[illegible] 80mg/m$^3$ [illegible] 1. 128kg/h[illegible]

[illegible],[illegible],[illegible]

(2)[illegible]

[illegible];[illegible];[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

[illegible] 2-4-1[illegible]

## 2.4.2 [illegible]

[illegible] SS, [illegible]; [illegible] COD[illegible]BOD$_5$[illegible]SS [illegible]

(1)[illegible]

[illegible] 2478m$^3$/d,[illegible] 5%[illegible],[illegible] 2354. 1m$^3$/d[illegible],[illegible]“ [illegible]+[illegible]+[illegible]”[illegible],[illegible],[illegible] (GB50383-2006)[illegible],[illegible](GB/T 18920__2002)[illegible],[illegible],[illegible],[illegible]

(2)[illegible]

[illegible] 514. 12m$^3$/d,[illegible]

[illegible],[illegible] 1 [illegible],[illegible] 35m$^3$/d,[illegible],[illegible],[illegible](GB/T 18920__2002) [illegible], [illegible],[illegible],[illegible],[illegible]

(3) [illegible]

[illegible], [illegible], [illegible] 2-4-2[illegible]

## 2.4.3 [illegible]

[illegible]

[illegible] 111 [illegible] t/a ([illegible] 2 [illegible] t/a,[illegible] 109 [illegible] t/a),[illegible],[illegible];[illegible],[illegible]

[illegible],[illegible] 1729 [illegible],[illegible] 0.5kg [illegible],[illegible] 315.5t/a,[illegible]

[illegible] 541t/a,[illegible],[illegible];[illegible] 18.6kg/a,[illegible],[illegible]

[illegible] 2-4-3[illegible]

## 2.4.4 [illegible]

[illegible] 85~100dB (A) [illegible],[illegible],[illegible]

[illegible],[illegible]

□□□□□□□□□□□□□□□□□□□□□,□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□,□□□□□□□□

## 2.4.6 □□□□□□□

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# 2.5 □□□□□□

## 2.5.1 □□□□□□

(1) □□□□:

□□□□□□□□□□ 1253m, □□□□□□□□ 2370m , 2 □□□□□□□□□

(2) □□□□:

□□□□:□□□□□□□;□□□□□□□□; 110KV □□□;□□□□ 10KV □□□□;□□□□□□□□□□; □□□;□□□□□□;□□□□□□□□□□□□□□;□□□;□□□□□□;□□□□□□□□□□□□□□□:□□□□□□□□□□ 70%□

(3) □□□□

□□: 110KV □□□□□□□□□□□□□□;□□□□□□□□□;□□□□ 10KV □□□□□□;□□□□□□□; □□□□□;□□□□□□□□□□□□□□□□;□□□□□□□□□

(4) □□□

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2 □□□□ 6 □□□□□□□□□□□□□□□□□□□□□□□ □□□□ 2011 □ 11 □□□□□,□□□□□□□□□ 50%□□□

## 2.5.2 [illegible]

(1)[illegible](2×660MW)[illegible]([illegible],[illegible][2013] 187 [illegible], 2013 [illegible] 7 [illegible]);

(2)[illegible]([illegible],[illegible][2012] 139 [illegible], 2012 [illegible] 2 [illegible])

(3)[illegible]([illegible],[illegible][2013]233 [illegible], 2014 [illegible] 5 [illegible])

(4)[illegible]([illegible],[illegible][2013]366 [illegible], 2014 [illegible] 12 [illegible])

(5)[illegible]([illegible],[illegible][2013]367 [illegible], 2014 [illegible] 12 [illegible])[illegible]

## 2.5.3 [illegible]

(1)[illegible]

① [illegible]

[illegible]

② [illegible]

[illegible]

③ [illegible]

[illegible],[illegible]

(2)[illegible]

① [illegible], [illegible], [illegible],[illegible]

② [illegible],[illegible]

③ [illegible],[illegible],[illegible]

(3)[illegible]

① [illegible],[illegible]

② [illegible], [illegible], [illegible], [illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

③ [illegible],[illegible]

**[illegible] 2-4-1 [illegible]**

| [illegible] | [illegible] | | [illegible] | [illegible] | | [illegible] | [illegible] | | [illegible] | [illegible] |
|---|---|---|---|---|---|---|---|---|---|---|
| | [illegible] | [illegible] | | [illegible] t/a | [illegible] mg/m³ | | [illegible] t/a | [illegible] mg/m³ | | |
| 1 | [illegible] | [illegible] | [illegible] | 298 | 4000 | [illegible] | 5.96 | 80 | [illegible] | [illegible] |
| | | [illegible] | [illegible] | [illegible] | | [illegible] | [illegible] | | [illegible] | |
| 2 | [illegible] | [illegible] | [illegible] | [illegible] | | [illegible] | [illegible] | | [illegible] | [illegible] |
| 3 | [illegible] | [illegible] | [illegible] 0.3km [illegible] | [illegible] | | [illegible] | [illegible] | | [illegible] | [illegible] |
| 4 | [illegible] | [illegible] | [illegible] 32.831km | [illegible] | | [illegible] | [illegible] | | [illegible] | [illegible] |

[illegible] **2-4-2** [illegible]

| [illegible] | [illegible] | | [illegible] | [illegible] | | [illegible] | [illegible] | | [illegible] |
|---|---|---|---|---|---|---|---|---|---|
| | [illegible] | [illegible] | | [illegible] | [illegible] | | [illegible] | [illegible] | |
| 1 | [illegible] | [illegible] SS [illegible] COD [illegible] | [illegible] | [illegible]: 2478m³/d, 81.774 [illegible] m³/a | | [illegible] (GB50383-2006) [illegible] (GB/T 18920—2002) [illegible] COD [illegible] 85% [illegible] BOD5 [illegible] 80%, SS [illegible] 96%, [illegible] 40%, [illegible] 60%[illegible] | [illegible]: 0m³/d, 0 [illegible] m³/a | | [illegible], [illegible] |
| | | | | SS=199.53 t/a | SS=244mg/L | | SS=0t/a | SS=9.8mg/L | |
| | | | | COD=71.14t/a | COD=87mg/L | | COD=0t/a | COD=13mg/L | |
| | | | | BOD5=12.27t/a | BOD5=15mg/L | | BOD5=0t/a | BOD5=3mg/L | |
| | | | | [illegible]=0.41t/a | [illegible]=0.5mg/L | | [illegible]=0t/a | [illegible]=0.3 mg/L | |
| | | | | [illegible]=2.45t/a | [illegible]=3mg /L | | [illegible]=0t/a | [illegible]=1.2mg /L | |
| 2 | [illegible] | [illegible] SS [illegible] BOD5 [illegible] COD [illegible] | [illegible] | [illegible]: 514.12m³/d, 18.77 [illegible] m³/a | | [illegible] 30.88 [illegible] m³/a (846m³/d), [illegible] (MBR [illegible]) [illegible] (GB/T 18920—2002) [illegible] SS、BOD5、COD [illegible] 90%、80%、85%、50%、60%[illegible] | [illegible]: 0m³/d, 0m³/a | | [illegible], [illegible] |
| | | | | SS=37.54 t/a | SS=200mg/L | | SS=0t/a | SS=20.0mg/L | |
| | | | | BOD5=13.14t/a | BOD5=70mg/L | | BOD5=0t/a | BOD5=14.0mg/L | |
| | | | | COD=37.16t/a | COD=198mg/L | | COD=0t/a | COD=29.7mg/L | |
| | | | | [illegible]=3.00t/a | [illegible]=16 mg/L | | [illegible]=0t/a | [illegible]=8.0mg/L | |
| | | | | [illegible]=1.13t/a | [illegible]=6mg /L | | [illegible]=0t/a | [illegible]=1.6mg/L | |
| 3 | [illegible] | [illegible] SS | [illegible] 944m³/ | [illegible] | | | [illegible] | | |

[illegible]

| | | | | | |
|---|---|---|---|---|---|
| | | | h | | |

[illegible]**:** [illegible] 85 **0991_4182190 3857017([illegible])**

□ **2-4-3** □□□□□□□□□□□□□□□□□□□□□□□□

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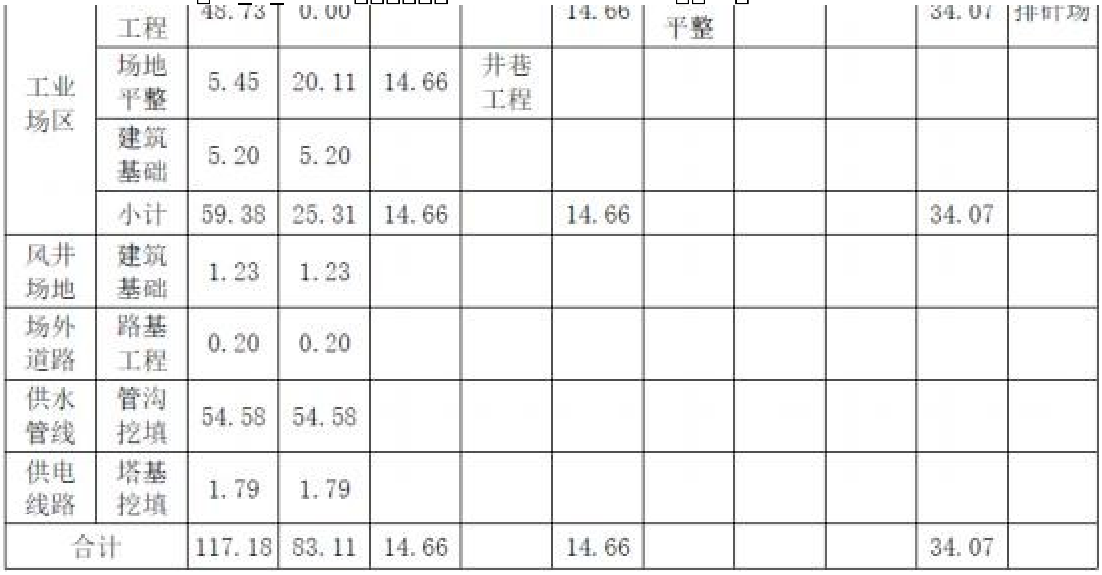
| □□□ | □□□ | | □□□ | | □□□ | |
| □□ | □□ | □□□□ | 49.17t/a | □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□;□□□□□□□□□□□□□□□,□□□□□□□□□□,□□□□□□□□□□□300m □□□□□ | 0 | □□□□□□□□□□□□□□□□□□ |
| □□□ | □□ | □□□□ | 111 □ t/a | | 0 | □□ |
| □□□□ | □□□□ | □□□□ | 315.5t/a | □□□□□□□□□□□□□□□ | 0 | □□□□ |
| □□□ | □□ | □□ | 541t/a | □□□□□□□ | 0 | □□□□□ |
| □□□□□□ | □□ | □□ | 18.6kg/a | □□□,□□□□□□□□ | 0 | □□□□ |

□ **2_4_4** □□□□□□ □□: □ m$^3$



| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 工业场区 | 工程 | 48.73 | 0.00 | | | 14.66 | 平整 | | | 34.07 | 排矸场 |
| | 场地平整 | 5.45 | 20.11 | 14.66 | 井巷工程 | | | | | | |
| | 建筑基础 | 5.20 | 5.20 | | | | | | | | |
| | 小计 | 59.38 | 25.31 | 14.66 | | 14.66 | | | | 34.07 | |
| 风井场地 | 建筑基础 | 1.23 | 1.23 | | | | | | | | |
| 场外道路 | 路基工程 | 0.20 | 0.20 | | | | | | | | |
| 供水管线 | 管沟挖填 | 54.58 | 54.58 | | | | | | | | |
| 供电线路 | 塔基挖填 | 1.79 | 1.79 | | | | | | | | |
| 合计 | | 117.18 | 83.11 | 14.66 | | 14.66 | | | | 34.07 | |

# 3 [illegible]

## 3.1 [illegible]

### 3.1.1 [illegible]

[illegible] 190°[illegible] 40km [illegible], [illegible]: [illegible] 93°19,06 [illegible]~93°29,00 [illegible],[illegible] 42°18,00 [illegible]~42°24,30 [illegible], [illegible] 20km [illegible],[illegible] 2.1-1[illegible]

[illegible], [illegible] 596km, [illegible], [illegible]“[illegible]”[illegible],[illegible],[illegible] 600km,[illegible] 1200km[illegible]—[illegible]([illegible])[illegible]—[illegible] 14km [illegible] 312 [illegible], [illegible] 38km[illegible],[illegible],[illegible]

### 3.1.2 [illegible]

[illegible]-[illegible], [illegible] 4886m;[illegible] 3300~3600m [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible],[illegible],[illegible] 500~750m [illegible], [illegible], [illegible], [illegible] 200km, [illegible], [illegible],[illegible],[illegible],[illegible]

[illegible],[illegible],[illegible], [illegible] +510~+630m, [illegible] 50m[illegible], [illegible],[illegible],[illegible]

### 3.1.3 [illegible]

(1)[illegible]

[illegible] 8~11℃, 1 [illegible], 7 [illegible],[illegible]([illegible]) [illegible], [illegible] 36~40℃[illegible], [illegible],[illegible], [illegible] 10℃[illegible], 2 [illegible] 9 [illegible],[illegible],[illegible] 25℃[illegible], 7 [illegible] 25℃~29℃, [illegible] 31~35℃, [illegible] 43.9℃(1952 [illegible] 7 [illegible] 15 [illegible])[illegible]1 [illegible]-13~-10℃, [illegible]-18~-15℃, [illegible], [illegible]-31.9℃(1954 [illegible] 1 [illegible] 31 [illegible])[illegible]

[illegible],[illegible],[illegible],[illegible],[illegible] 1985 [illegible],[illegible],[illegible] 2℃~4℃,[illegible] 1~2℃[illegible]

(2)[illegible]

[illegible] 40mm,[illegible] 25 [illegible],[illegible],[illegible] 1963 [illegible],[illegible] 9.6mm , 1988 [illegible] 68.3mm[illegible] 50%, [illegible] 5%[illegible] ≥5.0mm [illegible], [illegible] 1~2 [illegible]; ≥10.0mm [illegible]

[illegible] 15.9cm ([illegible]), [illegible], [illegible],[illegible]

(3)[illegible]

[illegible] 30~40%, [illegible]≤30%[illegible], [illegible] 100~160 [illegible],[illegible] 4~5 [illegible],[illegible],[illegible],[illegible] 3064.3mm,[illegible] 4169. 1mm,[illegible] 80 [illegible]

(4)[illegible]

[illegible], [illegible],[illegible], [illegible],

[illegible]:

(1)[illegible]: [illegible], [illegible] 2.8m/s , [illegible] 26.4m/s[illegible]

[illegible] 3~7 [illegible], [illegible] 4 [illegible], [illegible] 3~ 5 [illegible] 5~6 [illegible], [illegible], [illegible], [illegible]

(2) [illegible]: 6~8 [illegible], [illegible]; [illegible], [illegible], [illegible], [illegible],[illegible]

(3)[illegible]:[illegible],[illegible] 1.27m[illegible],[illegible],[illegible],[illegible], 2002 [illegible],[illegible]30℃,[illegible]

(4) [illegible]: [illegible] 0.05g, [illegible] w [illegible],[illegible] 2009 [illegible] 12 [illegible] 14 [illegible],[illegible] 5.1 [illegible], [illegible] 41.9°,[illegible] 94.5°, [illegible] 4km, [illegible] 150km,[illegible] 600km[illegible]

[illegible]: [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible] ,[illegible],[illegible],[illegible],[illegible]
[illegible],[illegible] 3-1-1[illegible]

□ **3-1-1** □□□□□□□□□□□□□□□

| □□ | □□ | □□ | □□□□ | □□ | □□ | □□ | □□□□ |
|---|---|---|---|---|---|---|---|
| □□□□ | hpa | 931 | | □□□□□□ | d | 6.9 | |
| □□□□ | hpa | 932.8 | 1956 | □□□□□□ | d | 16 | |
| □□□□ | hpa | 929.8 | 1951 | □□□□□ | d | 1.7 | |
| □□□□ | ℃ | 9.8 | | □□□□□ | d | 21 | |
| □□□□□□ | ℃ | 17.6 | | □□□□□□ | m/s | 26.4 | NNE□NE<br>1952/4/26 |
| □□□□□□ | ℃ | 2.7 | | □□□□ | m/s | 2.8 | |
| □□□□□□ | % | 5.4 | | □□□□ | | NE | |
| □□□□□□ | % | 27.7 | 1960-8-2 | 10%□□□□ | ℃ | | |
| □□□□□□ | % | 41 | | □□□□□□□ | ℃ | 27.2 | |
| □□□□□□ | % | 0 | | □□□□□□□ | ℃ | -9 | |
| □□□□□□ | ℃ | 43.9 | 1952-7-15 | □□□□ | mm | 3064.3 | |
| □□□□□□ | ℃ | -31.9 | 1954-1-31 | □□□□□□ | mm | 4169.1 | 1956 |
| □□□□ | mm | 34.6 | | □□□□□□ | mm | 2547.1 | 1974 |
| □□□□□□□ | mm | 19.9 | 1988 | □□□□□□ | cm | 16 | 1952/11/26 |
| □□□□□□ | mm | 68.3 | 1988 | □□□□□□ | cm | 127 | 1977/2/10 |
| □□□□□□ | mm | 9.6 | 1963 | □□□□ | d | 22.2 | |
| □□□□ | d | 6.5 | | □□□□□ | d | 13.4 | |
| □□□□ | d | 33.5 | | □□□ | d | 61.7 | |
| □□□□□□ | h | 3357.6 | | | | | |
| □□□□□□□ | MJ/m$^2$ | 6397.35 | | | | | |

## 3.1.4 □□□□□□

### 3.1.4.1 □□□

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[illegible], [illegible]: [illegible]

**[illegible]:** [illegible] 90 **0991_4182190** **3857017([illegible])**

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## 3.1.4.2 □□□

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□□□□□□□ 0. 1787m/d，□□□□ 0. 1819L/s·m□□□□□，□□□，□□□□□□□□□□□□□ Cl□Na □，pH □□ 7.47,□□□□□□□ 10.9g/L□

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□□□□□□□□□□□，□□□□□□，□□□□Ⅲ8 □□□□□，□

[illegible], [illegible], [illegible], [illegible]

[illegible](Ⅲ8)[illegible] 230km[illegible] 10~20km [illegible], [illegible], [illegible] 400~600m, [illegible] 30~50m, [illegible](Ⅲ8)[illegible], [illegible], [illegible], [illegible], [illegible],[illegible], [illegible], [illegible], [illegible] 1970 [illegible] 200 [illegible] 1996 [illegible] 2796 [illegible],[illegible],[illegible]-5389. 19×$10^4 m^3$/a,[illegible],[illegible],[illegible] 0.3~0.4m/a[illegible]

[illegible], [illegible]Ⅲ8 [illegible], [illegible], [illegible], [illegible], [illegible],[illegible],[illegible],[illegible]

[illegible], [illegible], [illegible] 100km, [illegible], [illegible], [illegible],[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible]

(3)[illegible]

[illegible], [illegible], [illegible], [illegible],[illegible],[illegible],[illegible],[illegible]

[illegible]，[illegible]，[illegible]，[illegible]，[illegible]，[illegible]，[illegible]

(4) [illegible]

[illegible]，[illegible]，[illegible]，[illegible]，[illegible]；[illegible]，[illegible]，[illegible]，[illegible]

(5) [illegible]

[illegible]，[illegible]，[illegible]，[illegible]，[illegible]，[illegible]，[illegible]

## 3.1.5 [illegible]

[illegible]，[illegible]，[illegible]，[illegible]，[illegible] 3% [illegible]

[illegible]，[illegible]，[illegible]，[illegible]

## 3.1.6 [illegible]

[illegible]“[illegible]”[illegible]，[illegible]，[illegible]，[illegible]，[illegible]，[illegible]，[illegible] (SL190-2007) [illegible]，[illegible] 2500~5000t/km$^2$·a[illegible]

## 3.2 □□□□□□

□□□□□□□□□ 190° □□ 40km □,□□□□□□□□□□□□□□□□□□□□□□□

(1)□□□

□□□□□□□□□□□ 15.3 □ km$^2$,□□□□□□□ 9% ,□□□□□□□□,□□□□□□□□□□□□□□□□□□□, □□ 10 □□□27 □□(□ 3 □□□□)□

□□□□□ 8.5 □ km$^2$, □□□□ 404km , □□□□ 322km , □□□□□□□□ 5.2%□□□ 4 □□□5 □□□□□□□18 □□ (91 □□□□, 37 □□□□), 1 □□□□□ (□□□□□□□), 1 □□□□□(□□□□□□□□□)□

□□ 2014 □□,□□□□□□ 58.39 □□,□□□□□□ 1.2 □□,□□ 2. 1% ,□□, □□□□□□(□□□□) 54.56 □□, □□□□□□□□ 3.83 □□□□□□□□ 61. 1%□□□□□□□ 0.59 □□, □□□□□ 10.2‰; □□□□ 0.25 □□, □□□4.3‰□□□□□□□□ 5.8‰□

2014 □□□□□□□□□□□□ 400.0 □□,□□□□□□□,□□□□□ 20.3% □□□, □□□□□□□40.8 □□, □□ 5.7%; □□□□□□□ 217.8 □□, □□ 29.9%;□□□□□□□ 141.4 □□, □□9.8%□□□□□□□, □□□□□ 146.8 □□, □□33.8%;□□□□□□ 71.0 □□, □□ 22.2%□□□□□□□□, □□□□□□□□ 65304 □,□□ 18.3%□□□□□□□□□□□□ 10631 □□/□□

(2)□□□

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## 3.3 □□□□□□

(1)□□□□

[illegible] (HJ14-1996) [illegible],[illegible],[illegible] (GB3095-2012)[illegible]

(2)[illegible]

[illegible], [illegible], [illegible]Ⅲ[illegible], [illegible](GB3838-2002)Ⅲ[illegible]

(3)[illegible]

[illegible] (GB/T14848-93)[illegible],Ⅲ[illegible],[illegible],[illegible],[illegible] (GB/T14848-93)Ⅲ[illegible]

(4)[illegible]

[illegible](GB3096-2008) [illegible], [illegible] 200m [illegible](GB3096-2008)[illegible] 2 [illegible]

(5)[illegible]

[illegible], [illegible]-[illegible]-[illegible]

(5)[illegible]

[illegible],[illegible]“[illegible]”[illegible]

# 4 □□□□□□□□□ □□□□□□□□□□□

## 4.1 □□□□□□

### 4.1.1 □□□□□□

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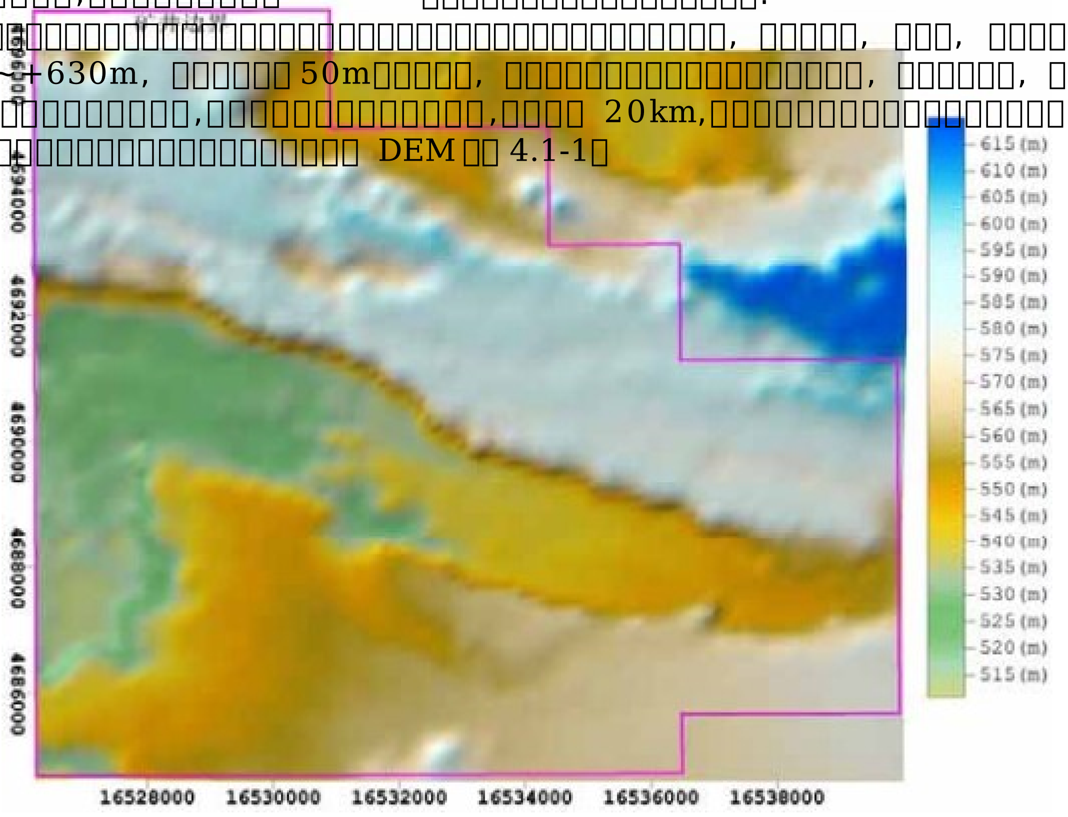
矿井边界
4696000
4694000
4692000
4690000
4688000
4686000
16528000
16530000
16532000
16534000
16536000
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615 (m)
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**□ 4 1-1 □□□□□□ DEM**

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## 4.1.2 [illegible]

[illegible], [illegible], [illegible], [illegible],[illegible] 18 [illegible],[illegible]: 3 [illegible] 7 [illegible] 10 [illegible] 15 [illegible] 25 [illegible] 28 [illegible] 29 [illegible]; 5 [illegible] 6 [illegible] 12 [illegible] 13 [illegible] 14 [illegible] 16 [illegible] 18 [illegible] 19 [illegible] 20 [illegible] 22 [illegible] 26 [illegible], [illegible]

[illegible], [illegible]; [illegible] 4689000 [illegible];[illegible] ZK523 [illegible] ZK504 [illegible];[illegible] 3 [illegible] 5 [illegible] 6 [illegible] 7 [illegible], [illegible], [illegible], [illegible], [illegible] 4.1-2[illegible]

[illegible] 4.1-2 [illegible]

[illegible],[illegible],

[illegible], [illegible], [illegible]

[illegible] 2 [illegible],[illegible]

## 4.1.2 [illegible]

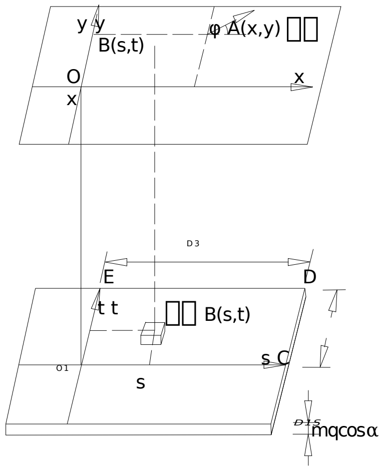
[illegible], [illegible], [illegible]:[illegible]

[illegible],[illegible],[illegible],[illegible] 10m,[illegible] φ=45°,[illegible] δ=v=72°;[illegible] 20m;[illegible] 10m;[illegible] 50m,[illegible],[illegible]

[illegible]:[illegible],[illegible]

## 4.1.3 [illegible]

### 4.1.3.1 [illegible]


y y
B(s,t)
φ A(x,y) [illegible]
O
x
x
D3
E
D
t t
[illegible] B(s,t)
O1
s C
s
D15
mqcosα

[illegible] **4.1-3** [illegible]

[illegible],[illegible] ([illegible]) [illegible],[illegible]

(1) [illegible]

[illegible] 4.1-3 [illegible]

[illegible],[illegible] s,[illegible] A [illegible] x,[illegible] A [illegible]:

$$W_e(x) = \frac{1}{r} e^{-\pi\frac{(x-s)^2}{r^2}}$$

[illegible],[illegible],[illegible],[illegible],[illegible] $to_1s$ [illegible] $xoy$ [illegible],[illegible] B ([illegible] $(s, t)$[illegible] A ([illegible] $(x, y)$ )[illegible]:

$$W_e(x,y) = \frac{1}{r^2} e^{-\pi\frac{(x-s)^2+(y-t+l)^2}{r^2}}$$

[illegible]:

$r$—[illegible], $r=H_0/tg\beta$;

$H_0$—[illegible];

$tg\beta$—[illegible],[illegible] $\beta$ [illegible];

$l=H\cdot Ctg\theta$ , $H$ [illegible];

$\theta$—[illegible],[illegible];

$(s , t)$—[illegible];

$(x , y)$—[illegible]

(2)[illegible]

① [illegible] $W(x, y)$

[illegible] $W_0 = mq\cos\alpha$ ,[illegible] $O_1CDE$ ,[illegible] $O_1C$ [illegible] $D_3$ ,[illegible] $D_{1s}$ ,[illegible] A [illegible] $W(x, y)$[illegible]:

$$W(x,y) = W_0 \int_0^{D_3} \int_0^{D_{1s}} \frac{1}{r^2} e^{-\pi\frac{(x-s)^2+(y-t)^2}{r^2}} dtds$$

[illegible],[illegible]:

$$W(x, y) = W_0 \times [W(x)\_W(x\_D_3)] \times [W(y)\_W(y\_D_{1s})]$$

[illegible],[illegible]:

$$W(x,y) = \frac{1}{W_0} \times W^0(x) \times W^0(y)$$

[illegible] $W_0$ [illegible], $W^0(x)$[illegible]

[illegible] x [illegible], $W^0(y)$[illegible] y [illegible]

② [illegible] $\varphi$ [illegible] $i(x, y, \varphi)$

[illegible] $\varphi$ ,[illegible] $\varphi$ [illegible] x [illegible]

[illegible](x , y)[illegible] A [illegible] $\varphi$ [illegible] W(x , y)[illegible] $\varphi$ [illegible],[illegible] $\varphi$ [illegible],[illegible]:

$$i(x,y,\varphi)=\frac{\partial W(x,y)}{\partial\varphi}=\frac{\partial W(x,y)}{\partial x}\cos\varphi+\frac{\partial W(x,y)}{\partial y}\sin\varphi$$

[illegible]:

$$i(x,y,\varphi)=\frac{1}{W_0}\times[i^0(x)\times W^0(y)\times\cos\varphi+i^0(y)\times W^0(x)\times\sin\varphi]$$

③ [illegible] $\varphi$ [illegible] $k(x, y, \varphi)$

A [illegible] $\varphi$ [illegible] $i(x, y, \varphi)$[illegible] $\varphi$ [illegible],[illegible] $\varphi$[illegible],[illegible]:

$$k(x,y,\varphi)=\frac{\partial i(x,y,\varphi)}{\partial\varphi}=\frac{\partial i(x,y,\varphi)}{\partial x}\cos\varphi+\frac{\partial i(x,y,\varphi)}{\partial y}\sin\varphi$$

[illegible]:

$$k(x,y,\varphi)=\frac{1}{W_0}\times[k^0(x)\times W^0(y)\times\cos^2\varphi+k^0(y)\times W^0(x)\times\sin^2\varphi+i^0(x)\times i^0(y)\times\sin 2\varphi]4）$$

④ [illegible] $\varphi$ [illegible] $U(x, y, \varphi)$

$$U(x,y,\varphi)=bri(x,y,\varphi)=\frac{1}{W_0}[U^0(x)\times W^0(y)\cos\varphi+U^0(y)\times W^0(x)\sin\varphi]$$

⑤ [illegible] $\varphi$ [illegible] $\varepsilon(x, y, \varphi)$

$$\varepsilon(x,y,\varphi)=brk(x,y,\varphi)=\frac{1}{W_0}\times\{\varepsilon^0(x)\times W^0(y)\times\cos^2\varphi+\varepsilon^0(y)\times W^0(x)\times\sin^2\varphi$$

$$+[U^0(x)\times i^0(y)+U^0(y)\times i^0(x)]\times\sin\varphi\cos\varphi]\}$$

⑥ [illegible] $\varphi$ [illegible] $S(x, y, \varphi)$ $U(x, y, \varphi)$[illegible] $y(x, y, \varphi)$

[illegible]:[illegible],[illegible],**[illegible]:** [illegible]

$10^{-3}$/m[illegible]

[illegible], A [illegible] $\varphi$ [illegible] $\varphi$ [illegible] $i(x, y, \varphi + 90$[illegible]$)$ [illegible], [illegible]:

$$s(x,y,\varphi)=\frac{\partial i(x,y,\varphi+90^o)}{\partial\varphi}=\frac{\partial i(x,y,\varphi+90^o)}{\partial x}\cos\varphi+\frac{\partial i(x,y,\varphi+90^o)}{\partial y}\sin\phi$$

$$=\frac{1}{2W_0}[k^0(y)W^0(x)-k^0(x)W^0(y)]\sin 2\varphi+\frac{1}{W_0}i^0(x)i^0(y)\cos 2\varphi$$

[illegible]: [illegible], [illegible]: mm/m[illegible]

$$\gamma(x,y,\varphi)=\frac{W^0(x)\varepsilon^0(y)-W^0(y)\varepsilon^0(x)}{W_0}\sin 2\varphi+\frac{U^0(x)i^0(y)-U^0(y)i^0(x)}{W_0}\cos 2\varphi$$

[illegible]; [illegible]

(3) [illegible]

[illegible], [illegible]:

① [illegible] $W_0 = mq\cos\alpha$

② [illegible] $i_0 = W_0 / r$

③ [illegible] $k_0 =$ [illegible] $1.52\frac{W_0}{r^2}$

④ [illegible] $U_0 = bW_0$

⑤ [illegible] $\varepsilon_0 =$ [illegible] $1.52bW_0 / r$

[illegible], [illegible], [illegible], [illegible]

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

(4) [illegible]

[illegible], [illegible]

[illegible]([illegible] $n$ [illegible]) [illegible]: [illegible]

[illegible], $W_e(x,y)$, $W_{eo}(x,y,t)$[illegible] $p(x,y)$[illegible] $t$ [illegible], [illegible] $f(t)$, [illegible]

$$Weo(x, y, t) = We(x, y) \bullet f(t)$$

[illegible] $W_e(x,y)$[illegible], [illegible] $f(t)=1-e^{-ct}$, [illegible], $t$——[illegible]

[illegible]

$c$——[illegible]/[illegible]

[illegible]

[illegible] $n$ [illegible], [illegible] $t$ [illegible] $i$ [illegible], [illegible] (1 ~$i$ [illegible]) [illegible] $p$ [illegible] $t$ [illegible], [illegible]

$$W(x,y,t) = \sum_{i=1} (Wie(x,y) \bullet f(t_i))$$

[illegible]

[illegible], [illegible] $C$, [illegible] $C$ [illegible], [illegible]: [illegible]—[illegible], [illegible]; [illegible], [illegible]; [illegible]

[illegible], [illegible]:

$$C = 2.0 \cdot v \cdot$$

$tg\beta / H$ [illegible] $v$: [illegible], m/d

$\tan\beta$: [illegible]

$H$: [illegible]

[illegible] $C$ [illegible] $L_1$ [illegible] $V$ [illegible]

$$C = -\frac{v}{L_1}\ln 0.02$$

### 4.1.3.2 [illegible]

[illegible]:

[illegible]: [illegible], [illegible], [illegible],[illegible]

[illegible]: [illegible], [illegible], [illegible],[illegible],[illegible],[illegible]

[illegible]: [illegible], [illegible], [illegible]

[illegible] q[illegible] b[illegible] tanβ[illegible] S [illegible] θ[illegible]

[illegible] 4-1-1[illegible]4-1-2[illegible]4-1-3 [illegible]

[illegible] **4-1-1** [illegible]

| | [illegible] (Mpa) | [illegible] | [illegible] $Q_0$ | [illegible] | |
|---|---|---|---|---|---|
| | | | | $Q_1$ | $Q_2$ |
| | ≥90 | [illegible] | 0.0 | 0.0 | 0.1 |
| | 80 | | 0.0 | 0.1 | 0.4 |
| | 70 | | 0.05 | 0.2 | 0.5 |
| | 60 | | 0.1 | 0.3 | 0.6 |
| | 50 | [illegible]<br>[illegible]<br>[illegible]<br>[illegible] | 0.2 | 0.45 | 0.7 |
| | 40 | | 0.4 | 0.7 | 0.95 |
| | 30 | | 0.6 | 0.8 | 1.0 |
| | 20>10 | | 0.8 | 0.9 | 1.0 |
| | | | 0.9 | 1.0 | 1.1 |
| | ≤10 | [illegible]([illegible])[illegible]<br>[illegible]<br>[illegible]-[illegible] | 1.0 | 1.1 | 1.1 |

□ **4-1-2** □□□□□□□□□□□□□□□□□□□

| □□ | □□□□ q | □□□□□□ b | □□□□□□□ tanβ | □□□□□ S | □□□□□□□ θ0 |
|---|---|---|---|---|---|
| □□ | 0.2～0.54 | 0.2～0.3 | 1.2～1.91 | (0.31～0.43) $H_0$ | 90°-(0.7～0.8)“ |
| □□ | 0.5～0.85 | 0.2～0.3 | 1.92～2.4 | (0.08～0.3) $H_0$ | 90°-(0.6～0.7)“ |
| □□ | 0.8～1.00 | 0.2～0.3 | 2.41～3.54 | (0～0.03) $H_0$ | 90°-(0.5～0.6)“ |

□:□□□□□, q □1= (1+“) q □, q □2=(1+“)q □1□

□ **4-1-3** □□□□□□□□□□□□□□□□□□□

| □□ | □□□□ | □□□□ | □□□□ | □□□□□□□□□ |
|---|---|---|---|---|
| □□ | 0.15 | 0.20 | 0.01 | 0 |
| □□ | 0.20 | 0.10 | 0.05 | 0 |

(1)□□□□□□□□ P □□□

□□□□□□□□ P □□□

$$p = \frac{\sum_{i} miQi}{\sum_{i}^{n} mi}$$

□□ mi——i □□□□□□;

Qi——i □□□□□□□□(□□ 4-1-3 □□□□□□□□)□

□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ P □□□□□□□ D □□, □□□□□□□□□, □□□ 4-1-3 □□□□□□□□□ P=0.8,□□□□□ P=0.9,□□□□□□□□□ P=1□

(2)□□□□□□ D

□□□□□□□□□□□□□, □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□, □□□□□□□ D=3 , □□□□□□□ D=3.2,□□□□□□□□□ D=3.5□

(3)□□□□ q

q=0.5×(0.9+P)

□□□□□ q=0.85 , □□□□□□□ q=0.9,□□□□□□□□□ q=0.95□

(4)□□□□□□ b □□□

b0=(1+0.0086“)×0.3 (□□□□□□)

□□: “——□□□□(□□□,□□□□ 14°)□

[illegible] 0.33[illegible]

(5)[illegible] θ [illegible]

θ=90°-0.6a

(6)[illegible] tgβ [illegible]

tgβ= (1-0.0038“) (D-0.00032$H_0$)

[illegible]: “——[illegible];

$H_0$——[illegible]

[illegible] tgβ [illegible], “ [illegible]

D——[illegible] P [illegible]

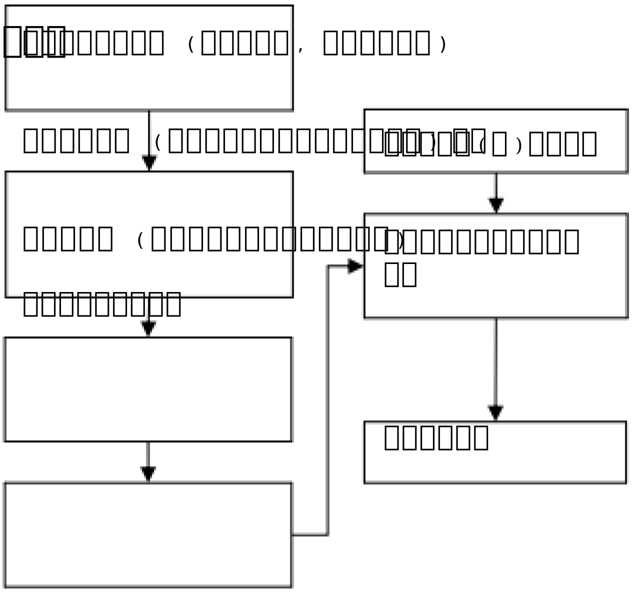
(7)[illegible] S [illegible]

[illegible], [illegible], [illegible] S=0. 1H[illegible], [illegible] 4-1-4[illegible]

[illegible] **4-1-4** [illegible]

| [illegible] | [illegible] | [illegible] q | [illegible] b | [illegible] θ (°) | [illegible] | [illegible] tgβ |
|---|---|---|---|---|---|---|
| [illegible] | [illegible] | 0.85 | 0.33 | 90°-0.6a | 0.1H | 2.4 |
| [illegible] |  | 0.90 |  |  | 0.1H | 2.5 |
| [illegible] |  | 0.95 |  |  | 0.1H | 2.6 |

## 4.1.4 [illegible]



[illegible] 4.1-4 [illegible]

## 4.1.5 [illegible]

### 4.1.5.1 [illegible] ([illegible])

[illegible], [illegible], [illegible],[illegible] 4-1-5 ([illegible])[illegible]

**[illegible] 4-1-5 [illegible]**

| [illegible] | [illegible] | [illegible] (mm /m) | [illegible] $(10^{-3}/m^2)$ | [illegible] (mm) | [illegible](mm/m) | [illegible](mm) |
|---|---|---|---|---|---|---|
| [illegible] | [illegible] | 158.5 | 3.90 | 4234 | 77.1 | 14878 |
| | [illegible] | -60.7 | -4.16 | -2661 | -84.5 | |
| | [illegible] | 157.4 | 3.56 | 4511 | 75.9 | |
| | [illegible] | -154.5 | -4.08 | -4589 | -80.7 | |
| [illegible] | [illegible] | 350.4 | 8.68 | 16890 | 206.3 | 64759 |
| | [illegible] | -197.5 | -6.24 | -15329 | -122.8 | |
| | [illegible] | 416.6 | 6.23 | 19010 | 173.6 | |
| | [illegible] | -331.2 | -5.52 | -17349 | -185.7 | |

### 4.1.5.2 [illegible]

[illegible], [illegible], [illegible]

[illegible]:

(1)[illegible]

[illegible], [illegible]([illegible])[illegible]

(2)[illegible]

[illegible], [illegible], [illegible]

(3)[illegible]

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

(4)[illegible]

[illegible]: [illegible], [illegible] (T) [illegible]:

$$T = 2.5\times H \quad (d)$$

[illegible]: H — [illegible],[illegible] 200 [illegible],[illegible] 900 [illegible]

[illegible] 4-1-6[illegible]

[illegible] **4-1-6** [illegible]

| [illegible] | [illegible] (m) | [illegible] (a) |
|---|---|---|
| [illegible] | [illegible] 200 | [illegible] 1.4 |
| [illegible] | [illegible] 900 | [illegible] 6.2 |

[illegible]: $V_0 = K\dfrac{Wcm \bullet C}{H}$

[illegible]: K —[illegible],[illegible] 1.8 ;

Wcm — [illegible] (mm);

C — [illegible] (m/d),[illegible] 5~10m/d

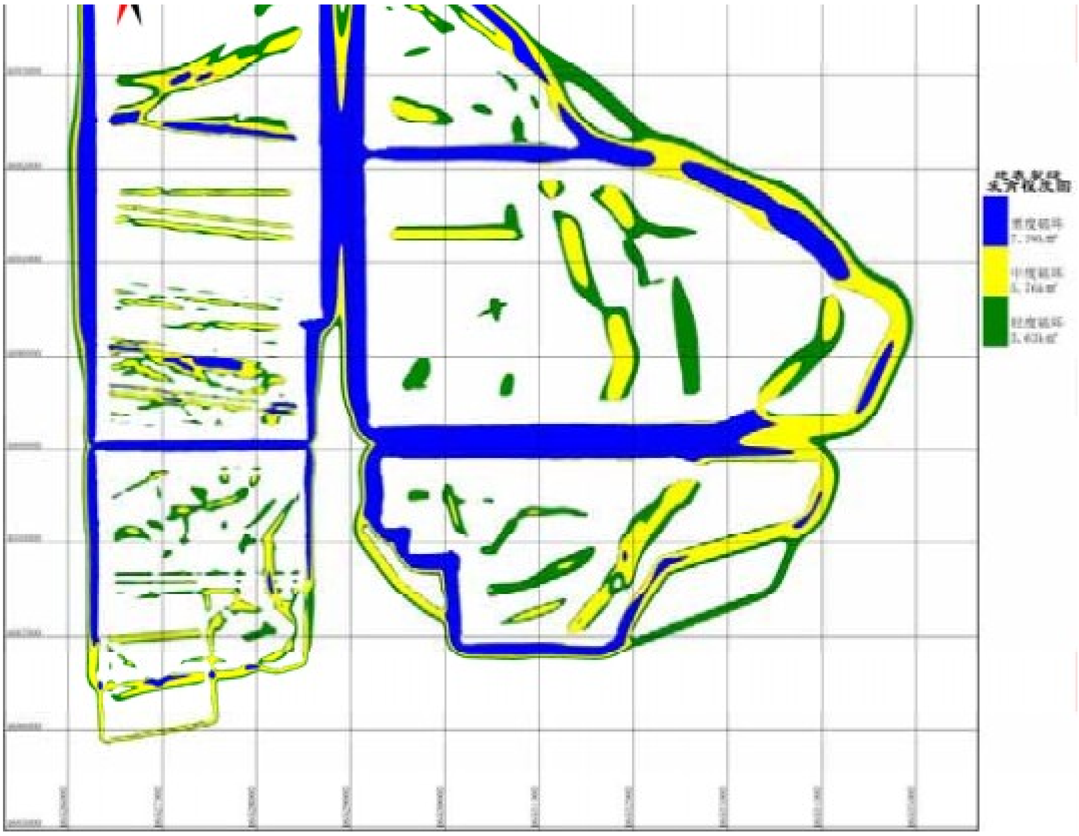
H — [illegible] (m)

[illegible] 4-1-7 [illegible] 7 [illegible] 25 [illegible]

| [illegible] | [illegible] (mm) | [illegible] (m/d) | [illegible] (m) | [illegible] (mm/d) |
|---|---|---|---|---|
| 7 [illegible] | 8917 | 5~10 | 200 | 401~802 |
| 25 [illegible] | 7864 | 5~10 | 500 | 138~276 |

[illegible]“[illegible]”[illegible]“[illegible]”[illegible]:[illegible] 1.4 [illegible]~6.2 [illegible],[illegible], [illegible]; [illegible],[illegible],[illegible],[illegible]

## 4.1.5.3 [illegible]



**[illegible] 4.1-5 [illegible]=[illegible] ([illegible])**

[illegible]=[illegible] [illegible]=[illegible], [illegible]

□□□，□=□□□□□□□□，□□□□□□□□□□□□□□□□□□□=，□□□□□□□□□□，□□□□□□□□□□□□□□，□=□□□□□□□□，□□□□□，□□□□□□□□□□□□□□□□□□□□□□□□□□□□，□□□□□□□□□□□□□□□,□□□=□□□□□□

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□□□□□□□□，□□□□□□，□□□□□□□□□□□□□□□□=，□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□=□□□□□□□, □□□□□□□: 5~10mm/m □□□□□□10~20mm/m □□□□□□□□20mm/m □□□□□□□□□□: □□□□ 5.63km$^2$，□□□□ 5.76km$^2$，□□□□ 7.38km$^2$ □□□□□□□ 4.1-5□

### 4.1.5.4 □□□□□□□

**□ 4-1-8 □□□□□□□□□□**

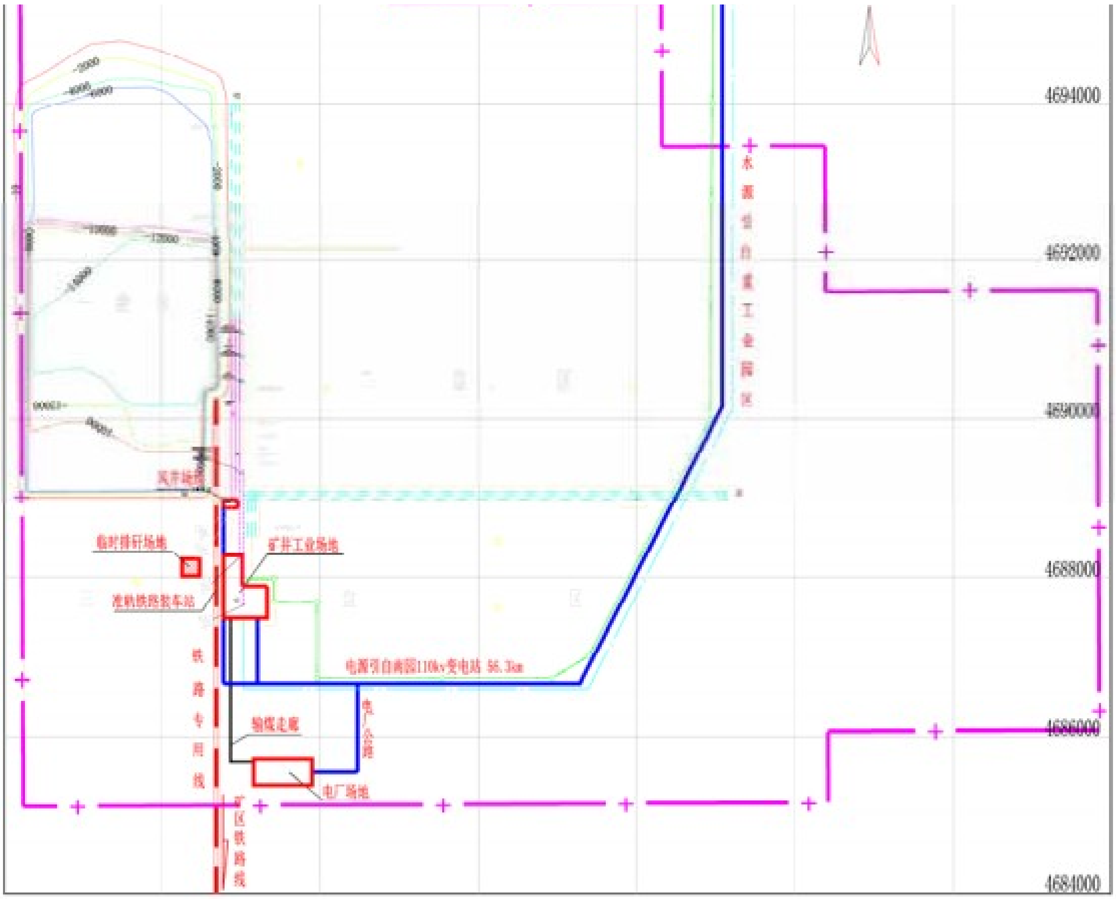
| □□□(mm) | □□□□(km2) | □□□□(mm) | □□□□(km2) | □□□□□□□□(%) |
|---|---|---|---|---|
| 10 | 14.575 | 10~2000 | 1.695 | 11.630 |
| 2000 | 12.880 | 2000~4000 | 0.776 | 5.326 |
| 4000 | 12.104 | 4000~6000 | 0.627 | 4.303 |
| 6000 | 11.477 | 6000~8000 | 3.834 | 26.303 |
| 8000 | 7.643 | 8000~10000 | 1.647 | 11.302 |
| 10000 | 5.996 | 10000~12000 | 0.659 | 4.523 |
| 12000 | 5.336 | 12000~14000 | 1.738 | 11.922 |
| 14000 | 3.599 | >14000 | 3.599 | 24.692 |

**□ 4-1-9 □□□□□□□□□**

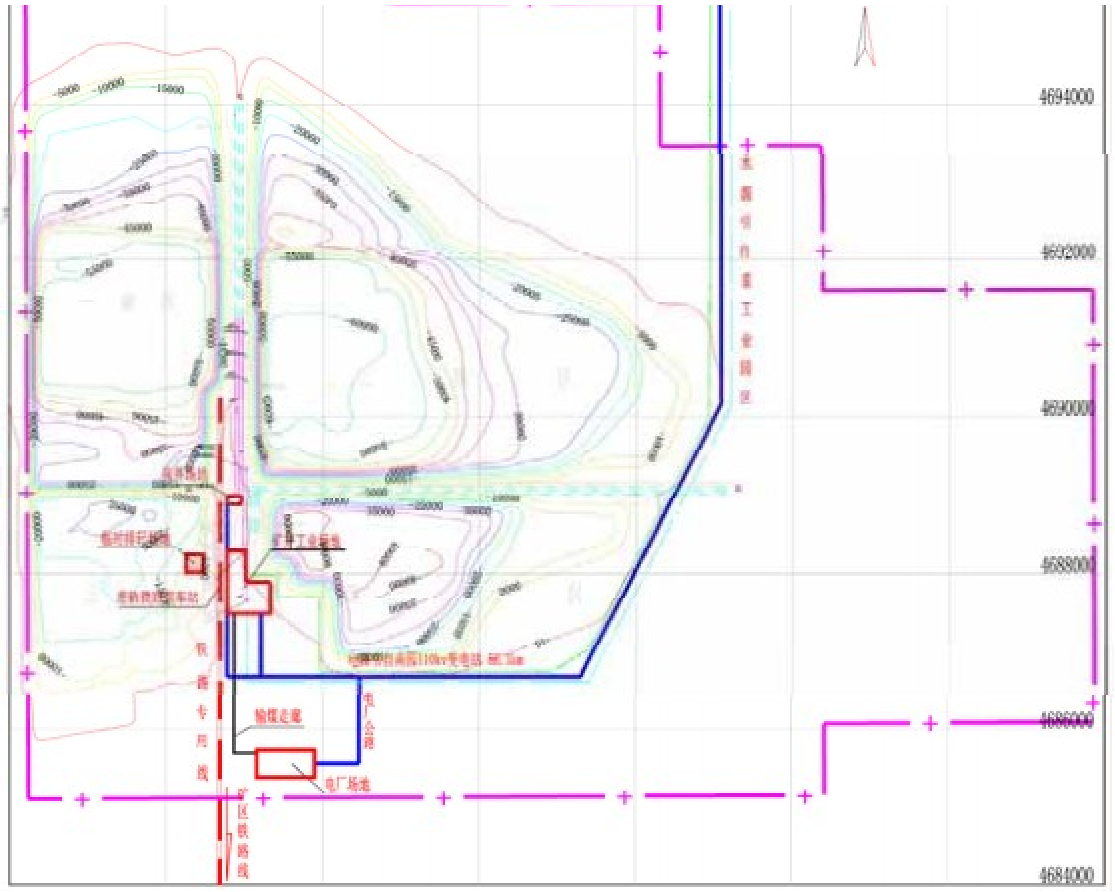
| □□□(mm) | □□□□(km2) | □□□□(mm) | □□□□(km2) | □□□□□□□□(%) |
|---|---|---|---|---|
| 10 | 56.128 | 10~5000 | 13.082 | 23.307 |
| 5000 | 43.046 | 5000~10000 | 4.093 | 7.292 |
| 10000 | 38 .953 | 10000~15000 | 4.280 | 7.626 |
| 15000 | 34.673 | 15000~20000 | 4.538 | 8.086 |
| 20000 | 30.135 | 20000~25000 | 4.506 | 8.027 |
| 25000 | 25.629 | 25000~30000 | 4.478 | 7.978 |
| 30000 | 21.152 | 30000~35000 | 3.465 | 6.174 |
| 35000 | 17.687 | 35000~40000 | 3.984 | 7.098 |
| 40000 | 13.702 | 40000~45000 | 2.518 | 4.486 |
| 45000 | 11.184 | 45000~50000 | 1.246 | 2.219 |

| [illegible](mm) | [illegible](km2) | [illegible](mm) | [illegible](km2) | [illegible](%) |
|---|---|---|---|---|
| 50000 | 9.939 | 50000~55000 | 2.106 | 3.752 |
| 55000 | 7.833 | 55000~60000 | 6.104 | 10.876 |
| 60000 | 1.728 | >60000 | 1.728 | 3.079 |

### 4.1.5.5 [illegible]


4694000
4692000
4690000
4688000
4686000
4684000
水源引自准东工业园区
风井场地
临时排矸场地
矿井工业场地
准轨铁路装车站
铁路专用线
电源引自南园110kv变电站 56.3km
电厂公路
输煤走廊
电厂场地
矿区铁路线

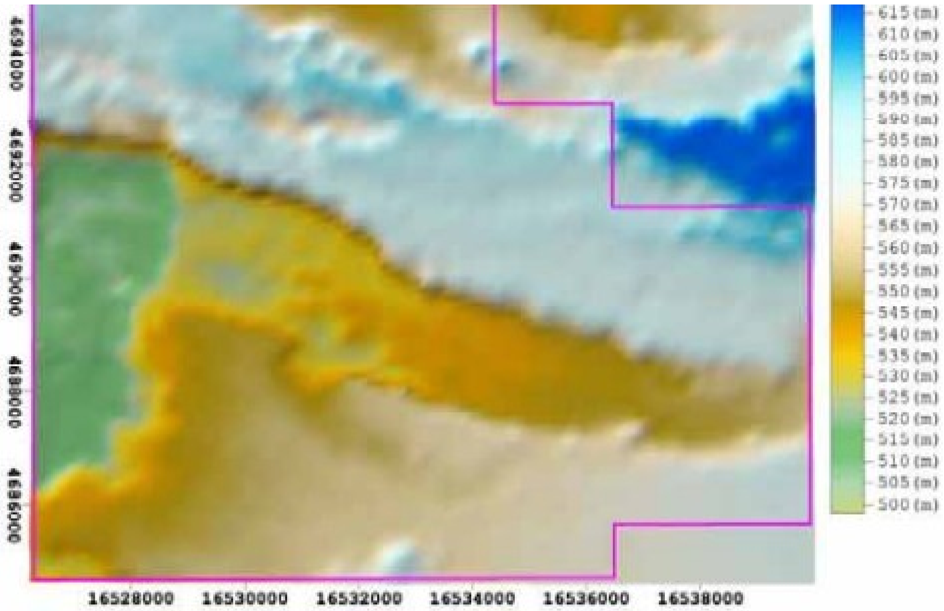
[illegible] 4.1-6 [illegible]


4694000
4692000
4690000
4688000
4686000
4684000
铁路专用线
矿区铁路线
输煤走廊
电厂公路
电厂场地

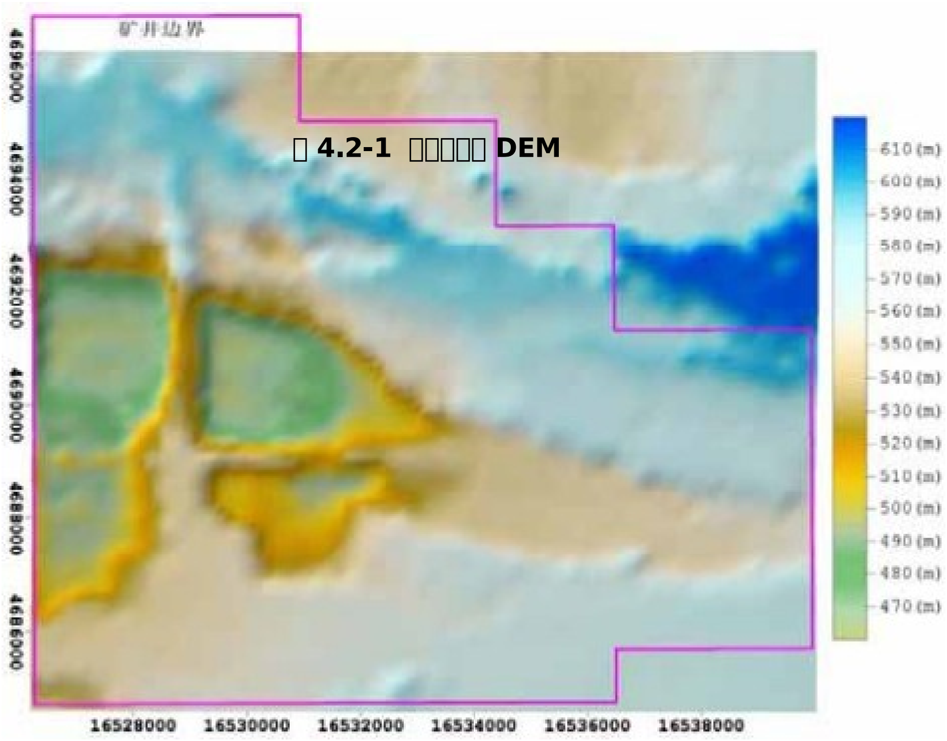
[illegible] 4.1-7 [illegible]

# 4.2 [illegible]

## 4.2.1 [illegible]


4694000
4692000
4690000
4688000
4686000
16528000
16530000
16532000
16534000
16536000
16538000
615 (m)
610 (m)
605 (m)
600 (m)
595 (m)
590 (m)
585 (m)
580 (m)
575 (m)
570 (m)
565 (m)
560 (m)
555 (m)
550 (m)
545 (m)
540 (m)
535 (m)
530 (m)
525 (m)
520 (m)
515 (m)
510 (m)
505 (m)
500 (m)

[illegible] 4.2-1 [illegible] DEM


矿井边界
4696000
4694000
4692000
4690000
4688000
4686000
16528000
16530000
16532000
16534000
16536000
16538000
610 (m)
600 (m)
590 (m)
580 (m)
570 (m)
560 (m)
550 (m)
540 (m)
530 (m)
520 (m)
510 (m)
500 (m)
490 (m)
480 (m)
470 (m)

[illegible] 4 2-2 [illegible] DEM

.

[illegible], [illegible], [illegible] DEM [illegible] 4.1-1, [illegible] DEM [illegible] 4.2-1, [illegible] DEM [illegible] 4.2-2, [illegible], [illegible]:

(1) [illegible], [illegible], [illegible]

(2) [illegible], [illegible], [illegible] = [illegible]

(3) [illegible], [illegible]

## 4.2.2 [illegible]

[illegible], [illegible] 64.75m, [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

## 4.2.3 [illegible]

(1) [illegible]

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

[illegible], [illegible], [illegible], [illegible]① [illegible], [illegible], [illegible];

② [illegible]

(2) [illegible]

[illegible], [illegible], [illegible], [illegible], [illegible]

[illegible], [illegible], [illegible], [illegible]

### 4.2.4 [illegible]

[illegible], [illegible], [illegible], [illegible]

### 4.2.5 [illegible]

[illegible], [illegible], [illegible], [illegible]

### 4.2.6 [illegible]

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

[illegible], [illegible], [illegible]

[illegible]

[illegible], [illegible], [illegible], [illegible]

(1) [illegible]

[illegible]: [illegible], [illegible], [illegible], [illegible]: [illegible]

[illegible], [illegible], [illegible]

[illegible]: [illegible], [illegible], [illegible], [illegible]

[illegible]:[illegible]

[illegible]: [illegible], [illegible]=[illegible], [illegible]([illegible] =)[illegible]

(2)[illegible]

[illegible] [illegible],[illegible]:[illegible]

[illegible]

## 4.2.7 [illegible]

### 4.2.7.1 [illegible]

[illegible], [illegible],[illegible]

(1)[illegible]

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

(2)[illegible]

[illegible], [illegible]

① [illegible], [illegible],[illegible]

② [illegible], [illegible]

[illegible]， [illegible]

③ [illegible]， [illegible]

### (3)[illegible]

[illegible]， [illegible]， [illegible]， [illegible]

### (4)[illegible]

[illegible]， [illegible]， [illegible]， [illegible]，[illegible]

[illegible]， [illegible]， [illegible] 1 [illegible]， [illegible] 3~4 [illegible],[illegible]， [illegible]

[illegible]，[illegible]， [illegible]([illegible]) [illegible]， [illegible]， [illegible]， [illegible]

### (5)[illegible]

[illegible]， [illegible]， [illegible]([illegible])， [illegible],[illegible],[illegible] 3~4 [illegible],[illegible],[illegible]

### 4.2.7.2 [illegible]

[illegible], [illegible], [illegible], [illegible]

(1) [illegible]

[illegible], [illegible], [illegible]

① [illegible]

[illegible], [illegible], [illegible], [illegible],[illegible] V [illegible],[illegible]

② [illegible]

[illegible], [illegible], [illegible],[illegible]

③ [illegible]

[illegible]; [illegible]; [illegible]

④ [illegible]

[illegible],[illegible],[illegible]

(2) [illegible]

[illegible], [illegible]

① [illegible]

[illegible]

② [illegible]

[illegible] 100~200mm,[illegible],[illegible]

③ [illegible]

[illegible], [illegible], [illegible], [illegible]

④ [illegible]

[illegible], [illegible],[illegible]

⑤ [illegible]

[illegible], [illegible]; [illegible], [illegible], [illegible]

⑥ [illegible]

[illegible], [illegible]

[illegible], [illegible], [illegible], [illegible]

## 4.3 [illegible]

### 4.3.1 [illegible]

[illegible], [illegible], [illegible] 30540m,[illegible] 23 [illegible],[illegible] 29 [illegible],[illegible]“[illegible]”[illegible]“[illegible],[illegible]”[illegible],[illegible], [illegible], [illegible], [illegible]

[illegible],[illegible],[illegible]

## 4.3.2 [illegible]

[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

[illegible]=[illegible];[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

[illegible]:

(1)[illegible],[illegible]
(2)[illegible]
(3)[illegible],[illegible],[illegible]
(4)[illegible],[illegible],[illegible],[illegible]
(5)[illegible],[illegible]
(6)[illegible]
(7)[illegible],[illegible]
(8)[illegible],[illegible],[illegible]

## 4.3.3 [illegible]

[illegible],[illegible],[illegible]

[illegible]

[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

# 5 [illegible]

## 5.1 [illegible]

### 5.1.1 [illegible]

[illegible] 2014 [illegible] 9 [illegible],[illegible], [illegible] 1:50000 [illegible] GPS [illegible],[illegible],[illegible],[illegible],[illegible], [illegible], [illegible]

[illegible], [illegible]: [illegible] 2km,[illegible] 174. 11km$^2$ ,[illegible] 2 [illegible]

### 5.1.2 [illegible]

[illegible], [illegible],[illegible],[illegible],[illegible]

[illegible],[illegible]——[illegible],[illegible]——[illegible], [illegible]——[illegible]([illegible] 5. 1-1)[illegible], [illegible], [illegible], [illegible],[illegible],[illegible],[illegible]

[illegible]“[illegible]” [illegible], [illegible], [illegible]: [illegible], [illegible]: [illegible], [illegible]

## 5.1.3 [illegible]

[illegible] $9.935\times10^4km^2$ ,[illegible] $226km^2$ [illegible] $255km^2$ [illegible] $14801km^2$ [illegible] $6.27km^2$ [illegible] $1622km^2$ [illegible] $33.29km^2$ [illegible] $82407km^2$ [illegible] 5-1-1[illegible]

[illegible] **5-1-1** [illegible] [illegible]**: hm²**

| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|---|---|---|
| 226 | 255 | 14801 | 6.27 | 1622 | 33.29 | 82407 | 99350.56 |

[illegible],[illegible] 1.5 [illegible] $km^2$ ,[illegible] $707hm^2$ ,[illegible] 0.05%;[illegible] $250hm^2$ ,[illegible] 0. 15%;[illegible] $34500hm^2$ ,[illegible] 2.32%;[illegible] $255000hm^2$ ,[illegible] 16.88%;[illegible] $2400hm^2$ ,[illegible] 0. 16%;[illegible] $105000hm^2$ ,[illegible] 7.07%;[illegible] $1100143hm^2$ ,[illegible] 73.37%[illegible] 5-1-2[illegible]

[illegible] **5-1-2** [illegible] [illegible]**: hm²**

| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|---|---|---|---|
| [illegible] | 707 | 2250 | 255000 | 34500 | 2400 | 105000 | 1100143 | 1500000 |

(1) [illegible]

[illegible]: [illegible] 6 [illegible], [illegible]; [illegible] 25 [illegible], [illegible], [illegible] 6 [illegible] 12 [illegible], [illegible] 5.1-3[illegible]

**[illegible] 5-1-3** [illegible]

| [illegible] | [illegible] | [illegible] |
|---|---|---|
| [illegible] | [illegible] | [illegible], [illegible]; [illegible], [illegible]; [illegible];[illegible] |
| [illegible] | [illegible] | [illegible]>40%[illegible] 2m [illegible] |
|  | [illegible] | [illegible] 10-30%[illegible] |
| [illegible] | [illegible] | [illegible] 20-50%[illegible],[illegible],[illegible] |
|  | [illegible] | [illegible] 5-20%[illegible],[illegible],[illegible],[illegible] |
| [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] |
|  | [illegible] | [illegible], [illegible] |
| [illegible] | [illegible] | [illegible] |
|  | [illegible] | [illegible],[illegible] 70%[illegible] |
|  | [illegible] | [illegible],[illegible] |

(2)[illegible]

[illegible],[illegible] Landset TM8 [illegible] 30 m [illegible],[illegible],[illegible] 96-B02-01-02 [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible]

[illegible]([illegible] 5. 1-2), [illegible] 2 [illegible],[illegible] 5.1-3 [illegible]

[illegible], [illegible], [illegible], [illegible], [illegible] 5-1-3[illegible]

**[illegible] 5-1-3** [illegible]

| [illegible] | [illegible] | | [illegible] | |
|---|---|---|---|---|
| | [illegible]（hm$^{2}$） | [illegible] | [illegible]（hm$^{2}$） | [illegible] |
| [illegible] | 8426.53 | 98.7% | 17300.53 | 99.37% |
| [illegible] | 110.47 | 1.3% | 110.47 | 0.63% |
| [illegible] | 8537 | 100% | 17411 | 100% |

[illegible] 5-1-3 [illegible], [illegible],[illegible] 98% [illegible], [illegible],[illegible],[illegible]

## 5.1.4 [illegible]

[illegible],[illegible],[illegible], [illegible], [illegible],[illegible]

(1)[illegible]

[illegible],[illegible],[illegible],[illegible]: [illegible], [illegible]; [illegible]; [illegible],[illegible]; [illegible],[illegible],[illegible],[illegible]

[illegible]: [illegible]; [illegible];[illegible]; [illegible]

[illegible]

(2)[illegible]

[illegible],[illegible],[illegible] 5.1-4[illegible]

## 5.1.5 [illegible]

(1)[illegible]

[illegible],[illegible],[illegible] 40 [illegible] 172 [illegible] 617 [illegible],[illegible]

(2)[illegible]

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

[illegible] 24km [illegible], [illegible], [illegible], [illegible]

## 5.1.6 [illegible]

(1)[illegible]

[illegible],[illegible],[illegible] 5.1-5 [illegible]

[illegible], [illegible], [illegible], [illegible], [illegible]—[illegible], [illegible],[illegible],[illegible]:

0-0.3cm,[illegible],[illegible],[illegible],[illegible],[illegible]

0.3-5cm,[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

5-16cm,[illegible],[illegible],[illegible],[illegible],[illegible] 16-29cm,[illegible],[illegible],[illegible],[illegible],[illegible]

29-100cm, [illegible], [illegible], [illegible], [illegible],[illegible],[illegible]

(2)[illegible]

[illegible], [illegible], [illegible], [illegible], [illegible],[illegible] 2014 [illegible] 10 [illegible] 8 [illegible], [illegible] 5. 1-10 [illegible]

[illegible] pH [illegible];[illegible] Cu [illegible] Pb [illegible] Zn [illegible] Cr [illegible] As [illegible] Ni [illegible] Hg[illegible]

① [illegible]

[illegible],[illegible] 5-1-4[illegible]

[illegible] **5-1-4** [illegible]

| [illegible] | 1 [illegible] | 2 [illegible] | 3 [illegible] | 4 [illegible] | 5 [illegible] | 6 [illegible] |
|---|---|---|---|---|---|---|
| [illegible](g/kg) | >2.00 | 1.51—2.00 | 1.01—1.50 | 0.76—1.00 | 0.51—0.75 | ≤0.50 |
| [illegible](g/kg) | >1.0 | 0.81—1.00 | 0.61—0.80 | 0.41—0.60 | 0.21—0.40 | ≤0.20 |

[illegible],[illegible]: $P_i = C_i / S_i$

[illegible], $P_i$——[illegible] i [illegible];

$C_i$——[illegible] i [illegible] (mg/kg);

$S_i$——[illegible] (mg/kg)[illegible]

[illegible] (GB15618-1995)[illegible]

② [illegible]

[illegible] 5-1-5,[illegible] 5-1-6[illegible]

[illegible] **5-1-5** [illegible]

| [illegible] | pH | [illegible](g/kg) | [illegible](g/kg) |
|---|---|---|---|
| 1#[illegible] | 8.02 | 0.15 | 0.215 |
| [illegible] | [illegible] | 6 [illegible] | 5 [illegible] |
| 2#[illegible] | 8.09 | 0.17 | 0.368 |

| | | | |
|---|---|---|---|
| [illegible] | [illegible] | 6 [illegible] | 5 [illegible] |

**[illegible] 5-1-6** [illegible]

| [illegible] | [illegible] | [illegible] | | [illegible] | | [illegible] |
|---|---|---|---|---|---|---|
| | | [illegible] | Pi | [illegible] | Pi | PH＞7.5 |
| [illegible] | mg/kg | 9 | 0.09 | 19.3 | 0.193 | 100 |
| [illegible] | mg/kg | 13.3 | 0.038 | 20.3 | 0.058 | 350 |
| [illegible] | mg/kg | 52.3 | 0.1743333 | 75.4 | 0.2513333 | 300 |
| [illegible] | mg/kg | 21.5 | 0.086 | 28.1 | 0.1124 | 250 |
| [illegible] | mg/kg | 5.64 | 0.2256 | 5.77 | 0.2308 | 25 |
| [illegible] | mg/kg | 25.8 | 0.43 | 44.8 | 0.7466667 | 60 |
| [illegible] | mg/kg | 0.049 | 0.049 | 0.051 | 0.051 | 1 |

[illegible], [illegible] 5~6 [illegible] GB15618-1995,[illegible] Cu [illegible] Pb [illegible] Zn [illegible] Cr [illegible] As [illegible] Ni [illegible] Hg [illegible],[illegible]

[illegible], [illegible], [illegible]

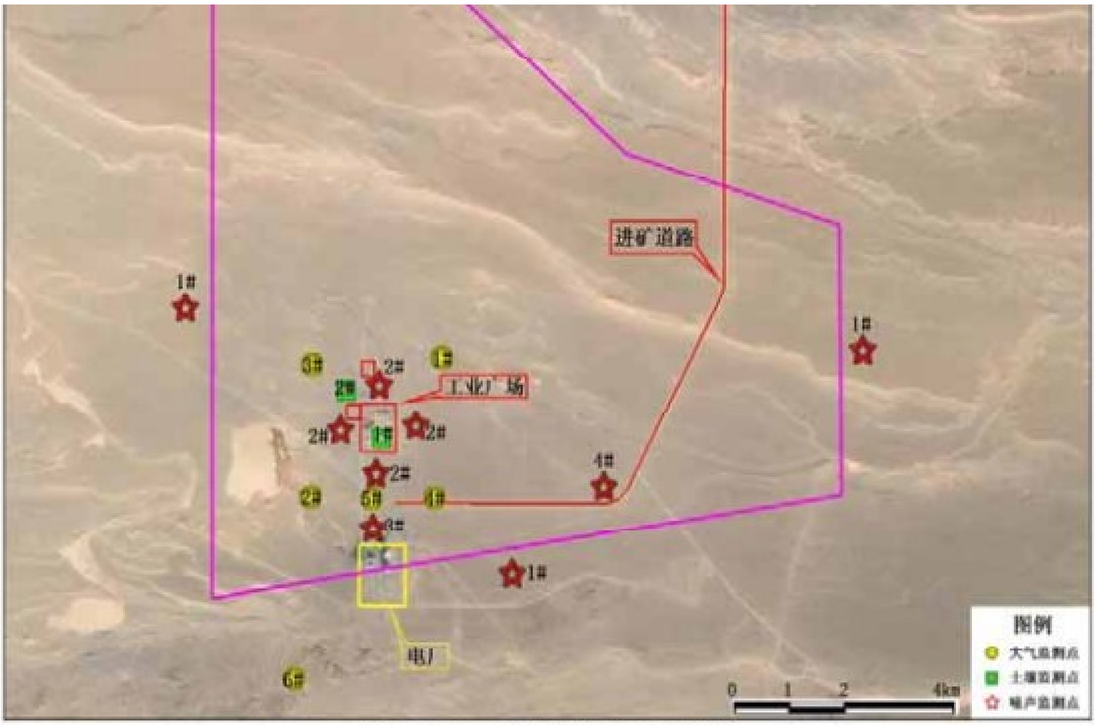

进矿道路
工业广场
电厂
1#
2#
3#
4#
5#
6#
图例
大气监测点
土壤监测点
噪声监测点
0
1
2
4km

图5.1-10 项目监测点位示意图

## 5.1.7 [illegible]

[illegible] 24km [illegible]

[illegible] 89°00, ~93°30, ,[illegible] 38°42, ~ 42°25,[illegible];[illegible], [illegible], [illegible], [illegible],[illegible]

[illegible] 2003 [illegible], [illegible]2012 [illegible] 8 [illegible] 31 [illegible],[illegible][2012] 153 [illegible] 24km,[illegible]

### 5.1.7.1 □□□□□□□□□□□□□□□□□□

1986 □, □□□□□□□□□□□□□□□□□□□□□□□□, □□ $150\times10^4hm^2$□

2000 □, □□□□□□□□□□□□□□□□□□□□□—□□□□□□□□□□□□□,□□□□ $150\times10^4$hm2 □□□ $780\times10^4hm^2$□

2003 □ 6 □, □□□□□□□□□□□□□□□□□□□□□□□□□2003 □ 6 □,□□□□□□, □□□□□□□□□□□□, □□“□□□□□□□□□□□□□□□□□□□”□□□□□□□□□□□□ 89º00´~93º30´,□□ 38º42´~42º34´,□□□□□□ $780\times10^4hm^2$□

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### 5.1.7.2 □□□□□□□□□□□

(1)□□□□□□

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(2)□□□□□□□

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[illegible], [illegible]

(3) [illegible]

[illegible], [illegible] 28 [illegible] 76 [illegible] 130 [illegible], 11 [illegible], [illegible], [illegible]

[illegible] 5.1-8[illegible]

#### 5.1.7.3 [illegible]

[illegible] 24km[illegible],[illegible],[illegible],[illegible]

### 5.1.8 [illegible]

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

### 5.1.9 [illegible]

[illegible], [illegible] 100%,[illegible], [illegible], [illegible], [illegible].

## 5.1.10 [illegible]

[illegible],[illegible]——[illegible],[illegible]——[illegible], [illegible]——[illegible], [illegible], [illegible],[illegible],[illegible]

# 5.2 [illegible]

## 5.2.1 [illegible]

[illegible]: [illegible]([illegible])[illegible]

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible] 48.5hm$^2$ ,[illegible],[illegible],[illegible];[illegible], [illegible],[illegible], [illegible] 2-3 [illegible], [illegible], [illegible]

[illegible], [illegible], [illegible],[illegible](8537hm$^2$ )[illegible] 0.57%,[illegible]

## 5.2.2 [illegible]

[illegible],[illegible] 1%,[illegible] [illegible]: [illegible]

[illegible], [illegible], [illegible],[illegible],[illegible]

[illegible], [illegible], [illegible], [illegible],[illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

## 5.2.3 [illegible]

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible];[illegible],[illegible],[illegible], [illegible], [illegible], [illegible] 2-3 [illegible],[illegible],[illegible]

[illegible], [illegible]=[illegible], [illegible]; [illegible], [illegible]=[illegible],[illegible]

## 5.2.4 [illegible]

[illegible], [illegible]:

(1)[illegible],[illegible]; [illegible], [illegible], [illegible], [illegible],[illegible]

(2)[illegible],[illegible],[illegible], [illegible]; [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

## 5.2.5 [illegible]

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible],[illegible],[illegible] 50km [illegible], [illegible], [illegible], [illegible]([illegible] 5. 1-8), [illegible],[illegible]

[illegible],[illegible],[illegible],[illegible], [illegible], [illegible], [illegible] 40 [illegible],[illegible], [illegible], [illegible],[illegible]

[illegible], [illegible], [illegible], [illegible]; [illegible], [illegible], [illegible]——[illegible], [illegible], [illegible], [illegible],[illegible],[illegible],[illegible], [illegible], [illegible],[illegible],[illegible],

[illegible]

[illegible]，[illegible]，[illegible]，[illegible] 1~2km [illegible]，[illegible],[illegible] 50km [illegible],[illegible],[illegible] [illegible],[illegible],[illegible]，[illegible]，[illegible]，[illegible]，[illegible]，[illegible]

## 5.2.6 [illegible]

[illegible]:

(1)[illegible],[illegible],[illegible]

(2)[illegible],[illegible]，[illegible]

(3)[illegible],[illegible],[illegible],[illegible]，[illegible]，[illegible]，[illegible]，[illegible]，[illegible]

# 5.3 [illegible]

## 5.3.1 [illegible]

[illegible]

(**1**)[illegible]

[illegible]: [illegible],[illegible] [illegible], [illegible], [illegible]

[illegible]: [illegible], [illegible],[illegible],[illegible]

[illegible]:[illegible], [illegible], [illegible], [illegible]

[illegible]: [illegible], [illegible],[illegible]

[illegible]: [illegible], [illegible], [illegible], [illegible]

(**2**)[illegible]

[illegible], [illegible],[illegible] (RS)[illegible] (GIS)[illegible],[illegible],[illegible]

## 5.3.2 [illegible]

(1)[illegible]

① [illegible] 90%;

② [illegible] 85%;

③ [illegible] 0.7;

④ [illegible]=[illegible] 100%;

⑤ [illegible] 15%[illegible]

(2)[illegible]

[illegible]

## 5.3.3 [illegible]

[illegible] ([illegible] 5. 1-1),[illegible]-[illegible]-[illegible]“[illegible]”[illegible]

[illegible], [illegible],[illegible],[illegible] 5-3-1[illegible]

[illegible] **5-3-1** [illegible]

| [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|
| [illegible] | [illegible] 100 [illegible] | [illegible] | [illegible], [illegible]; [illegible], [illegible];[illegible], [illegible] 15%[illegible] |
| [illegible] | [illegible] 50 [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible]=[illegible] | [illegible] | [illegible]=[illegible]; [illegible], [illegible]; [illegible], [illegible] |

## 5.3.4 [illegible]

(1)[illegible]

① [illegible], [illegible], [illegible] ([illegible]) [illegible], [illegible], [illegible]

② [illegible],[illegible],[illegible], [illegible],[illegible]

③ [illegible], [illegible], [illegible],

[illegible]

(2)[illegible]

① [illegible], [illegible],[illegible],[illegible]

② [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible],[illegible]

(3)[illegible]

① [illegible]=,[illegible]=[illegible],[illegible]

② [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible], [illegible], [illegible],[illegible]

[illegible], [illegible], [illegible], [illegible], [illegible]([illegible]) [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]: [illegible]; [illegible], [illegible], [illegible], [illegible]

## 5.3.5 [illegible]

(1)[illegible]

[illegible], [illegible],[illegible], [illegible],[illegible]:

① [illegible]“ [illegible][2007]81 [illegible]”[illegible], [illegible]

② [illegible], [illegible], [illegible]

[illegible], [illegible],[illegible]

[illegible], [illegible], [illegible]; [illegible], [illegible]

(2)[illegible]

[illegible], [illegible], [illegible]

① [illegible], [illegible], [illegible]

② [illegible],[illegible]

③ [illegible]

## 5.3.6 [illegible]

[illegible],[illegible]“ [illegible]--[illegible]” ,[illegible],[illegible], [illegible],[illegible]:

(1) [illegible]: [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

(2) [illegible]

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

(3) [illegible]

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

[illegible], [illegible], [illegible], [illegible], [illegible]

(4) [illegible]

[illegible], [illegible], [illegible], [illegible]

## 5.4 [illegible]

### 5.4.1 [illegible]

[illegible]

[illegible]:

(1)[illegible];

(2)[illegible];

(3)[illegible]

## 5.4.2 [illegible]

(1)[illegible]

[illegible] 1~2 [illegible],[illegible]

(2)[illegible]

① [illegible], [illegible]

② [illegible], [illegible],[illegible]

③ [illegible], [illegible]

④ [illegible], [illegible]

⑤ [illegible]

⑥ [illegible]

⑦ [illegible], [illegible],[illegible],[illegible]

## 5.4.3 [illegible]

[illegible] 5-4-1[illegible]

[illegible] **5-4-1** [illegible]

| | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|
| 1 | [illegible] | 1.[illegible]:[illegible],[illegible]<br>2.[illegible]: [illegible] 1 [illegible]<br>3.[illegible]:[illegible] | [illegible] | [illegible] |
| 2 | [illegible] | 1.[illegible]: [illegible]<br>2.[illegible]: [illegible] 1 [illegible]<br>3.[illegible]:[illegible] 3~5 [illegible] | [illegible] | [illegible] |
| 3 | [illegible] | 1.[illegible]:[illegible],[illegible]<br>2.[illegible]: [illegible] 1 [illegible]<br>3.[illegible]:[illegible] 3~5 [illegible] | [illegible] | [illegible] |
| 4 | [illegible] | 1.[illegible]: pH[illegible] N[illegible] P[illegible] K[illegible]<br>2.[illegible]: [illegible] 1 [illegible]<br>3.[illegible]:[illegible] 3~5 [illegible] | [illegible] | [illegible] |
| 5 | [illegible] | 1.[illegible]:[illegible]<br>2.[illegible]: 1 [illegible]<br>3.[illegible]: [illegible] | [illegible] | |

[illegible], [illegible]

# 6.[illegible]

## 6.1 [illegible]

### 6.1.1 [illegible]

[illegible], [illegible] 2014 [illegible] 10 [illegible] 26 [illegible] ~2014 [illegible] 10 [illegible] 27 [illegible],[illegible] 5.1-10[illegible]

[illegible] 110km, [illegible], [illegible] (GB/T3838-2002) [illegible]Ⅲ[illegible]

### 6.1.2 [illegible]

[illegible] 6-1-1[illegible]

[illegible] **6-1-1 [illegible]([illegible])[illegible]**

([illegible]: pH [illegible],[illegible] mg/L)

|  |  |  |  | 2014 [illegible] 10 [illegible] 26 [illegible] |  | 2014 [illegible] 10 [illegible] 27 [illegible] |  |
|---|---|---|---|---|---|---|---|
|  |  | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|  | 1 | pH | 6~9 | 7.98 | 0.49 | 8 | 0.50 |
|  | 2 | [illegible] | ≥5 | 7.9 | 0.70 | 8 | 0.70 |
|  | 3 | [illegible] | ≤30 | 48 | **1.60** | 34 | **1.33** |
|  | 4 | [illegible] | ≤20 | 8.14 | 0.41 | <5.0 | <0.25 |
|  | 5 | [illegible] | ≤4 | 1.87 | 0.47 | 0.92 | 0.23 |
|  | 6 | [illegible] | ≤6 | 0.65 | 0.11 | 0.91 | 0.15 |
|  | 7 | [illegible] | ≤1 | <0.025 | <0.025 | <0.025 | <0.025 |
|  | 8 | [illegible] | ≤1 | 0.08 | 0.08 | 0.08 | 0.08 |
|  | 9 | [illegible] | ≤0.005 | 0.001 | 0.20 | <0.001 | <0.2 |
|  | 10 | [illegible] | ≤0.2 | <0.004 | <0.02 | <0.004 | <0.02 |
|  | 11 | [illegible] | ≤0.05 | 0.04 | 0.80 | 0.08 | **1.60** |
|  | 12 | [illegible] | ≤1 | 0.72 | 0.72 | 0.76 | 0.76 |

| | □□□□ | □□□□ | 2014 □ 10 □ 26 □ | | 2014 □ 10 □ 27 □ | |
|---|---|---|---|---|---|---|
| | | | □□□□ | □□□□ | □□□□ | □□□□ |
| 13 | □□□ | ≤0.05 | <0.004 | <0.08 | <0.004 | <0.08 |
| 14 | □ | ≤1 | <0.001 | <0.001 | <0.001 | <0.001 |
| 15 | □ | ≤1 | <0.05 | <0.05 | <0.05 | <0.05 |
| 16 | □ | ≤0.005 | <0.001 | <0.20 | <0.001 | <0.20 |
| 17 | □ | ≤0.05 | <0.01 | <0.20 | <0.01 | <0.20 |
| 18 | □ | ≤0.05 | <0.0002 | <0.004 | <0.0002 | <0.004 |
| 19 | □ | ≤0.0001 | <0.0001 | <1.00 | <0.0001 | <1.00 |

□□ 6-1-1 □□,□□□□□□□□□□□□□□□□□□□□□□□□□□□□ (GB/T3838-2002)□□Ⅲ□□□, □□□□□(□□□□□□) □□□□□□, □□□□□□□□□□□□□□□□□, □□□□□□□□□□□□□□□□□□□□□□□□□□, □□□□□□□□□□□□□□□□□□□□□, □□□□□□□□□□□□□□□□□□□□□; □□,□□□□□□□□□□□□□□□□□□□

## 6.2 □□□□□□□□□

□□□□□□□□□□□□□□□□, □□□□□□□□□□□□□□, □□□□□□□□□□□□□□, □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

### 6.2.1 □□□□□□□□□□□□□

#### 6.2.1.1 □□□□□□□

□□□□□□□□□□□□□,□□□□□□□□□□□ $4.52\times10^8m^3$ ,□□□□□□□□□□□□□□ $4.10\times10^8m^3$ ,□□□□□□□□ $1.75\times10^8m^3$ ,□□□□□□ $2.27\times10^8m^3$□□□□□□□ $2.49\times10^8m^3$ (□□□□□□□□□□), □□□□□□□□□□□□□□

□□□□□□□□ $4.52\times10^8m^3$, □□□□□□□□□□□□□□□ $1.75\times10^8m^3$ ,□□□□□ $6.27\times10^8m^3$□

### 6.2.1.2 [illegible]

(1) [illegible]

[illegible],[illegible]

[illegible] 2013 [illegible], [illegible] 14 [illegible], [illegible] 21 [illegible], [illegible] $0.60\times10^8m^3$ ,[illegible] $0.5\times10^8m^3$ ;[illegible] 17 [illegible],[illegible] $63.05m^3/s$;[illegible] 2382.3km,[illegible] 1789.5km,[illegible] 75. 1%;[illegible] 5150 [illegible],[illegible] $60m^3/h$, [illegible] $5.18\times10^8m^3$ , [illegible], [illegible] $12\times10^4m^3/d$,[illegible] 200km [illegible],[illegible] $0.5m^3/s$[illegible]

[illegible],[illegible],[illegible] 1070 [illegible] m3,[illegible] 840 [illegible] m3,[illegible] 2096 [illegible] m3[illegible]

(2) [illegible]

[illegible] (2007~2013 [illegible])[illegible]([illegible]), [illegible] 2013 [illegible] $8.03\times10^8m^3$ , [illegible] $2.83\times10^8m^3$ , [illegible] 35.2%;[illegible] $5.18\times10^8m^3$ ,[illegible] 64.5%;[illegible] $0.0229\times10^8m^3$ ,[illegible] 0.3%[illegible]

[illegible] 2007~2013 [illegible],[illegible] $7.79\times10^8m^3$ ,[illegible] $2.66\times10^8m^3$ [illegible] $5.12\times10^8m^3$ [illegible] $0.0121\times10^8m^3$ ,[illegible] 34. 1% [illegible] 65.7%[illegible]0.2%[illegible], [illegible] 2013 [illegible],[illegible]

(3) [illegible]

[illegible] (2007~2013 [illegible])[illegible]([illegible]), [illegible] 2013 [illegible] $8.03\times10^8m^3$ , [illegible] $6.79\times10^8m^3$ , [illegible] 84.6%; [illegible] $0.54\times10^8m^3$ ,[illegible] 6.7%;[illegible] $0.25\times10^8m^3$ ,[illegible] 3. 1%;[illegible] $0.45\times10^8m^3$ ,[illegible] 5.6%[illegible]

[illegible] 2007~2013 [illegible] $7.76\times10^8m^3$ ,[illegible] $6.67\times10^8m^3$ [illegible] $0.42\times10^8m^3$ [illegible] $0.25\times10^8m^3$ [illegible] $0.44\times10^8m^3$ ,

□□□□□□□ 85.8%□5.5%□3. 1%□5.6%□□□□□□□□□□, □□□□□□□□□□□□,□□□□□□□□□□□□□ 2013 □□□□□□□□□□□□□□□□□□□□□□□□□,□□□□□□

(4)□□□□□□□□□□

□□□ 2013 □□□□□□□□□□□□□□□□□□□□□□ 6-2-1□

**□ 6-2-1 □□□ 2013 □□□□□□□□□□□□□□□□□□□□**

| □□□□ | □□□ | □□□□ | □□□□□ | □□ |
|---|---|---|---|---|
| □□ GDP (□□) | 5.488 | 5.491 | 3.758 | 4 |
| □□□□□ ($m^3$) | 1672 | 1844 | 2597 | 456 |
| □□ GDP □□□ ($m^3$) | 305 | 336 | 691 | 109 |
| □□□□□□□□□□□□ ($m^3$) | 513 | 497 | 623 | 418 |
| □□□□□□□□□□ ($m^3$) | 507 | 481 | 637 | |
| □□□□□□□□□□□ | 0.59 | 0.58 | 0.512 | 0.52<br>3 |
| □□□□□□□ (L/□·d) | 164 | 150 | 133 | 212 |
| □□□□□□□ (L/□·d) | 37 | 40 | 77 | 80 |
| □□□□□□□□□□ ($m^3$) | 62 | 64 | 38 (□□□□)<br>/63 | 67 |

① □□□□□□□□

□□□ 2013 □□□□□□□□□ GDP □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□, □□□□□□□□□□□□□□□

② □□□□□□□□□□

□□□ 2013 □□□□□□□□□□□□□□□□□□□□□□□□□□□□□,□□□□□□□□□□□□□□, □□□□□□□□□□□□□; □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□, □□□□□□, □□□□□□□□~□□□□□□□□□□□□□□□□□, □□□□□□□□□□□□□□□□□□ 30%□□, □□, □□□□, □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□;□□□□□□□□□□□□□□□□□□□□□□,□□□□□□□□□□□□□□□□□□□□□□□, □□□□□□□□□□□□□□□□□□□□□□□□□□□, □□□□□□□□□□□□□□□□□□□□□□

③ □□□□□□□□□□

□□□ 2013 □□□□□□□□□□□□□□□□□□□□□□□,□□□□□□□

[illegible], [illegible] (GB150282—99)[illegible] 170~ 310L/d [illegible], [illegible], [illegible]

[illegible] 2013 [illegible],[illegible]

④ [illegible]

[illegible] 2013 [illegible], [illegible], [illegible],[illegible]

### 6.2.1.3 [illegible]

(1)[illegible]

[illegible] $4.52\times10^8m^3$ , [illegible] $0.30\times10^8m^3$ [illegible] $0.65\times10^8m^3$ ,[illegible] $3.57\times10^8m^3$ ,[illegible] $2.49\times10^8m^3$ ,[illegible] $6.06\times10^8m^3$[illegible]2007~2013 [illegible] $8.03\times10^8m^3$ ,[illegible]

[illegible] 2013 [illegible] $1477\times10^4m^3$ , [illegible] $1279\times10^4m^3$ , [illegible] 86.6%[illegible] $228.85\times10^4m^3$ ,[illegible] 20% ,[illegible]

(2)[illegible]“[illegible]”[illegible]

[illegible]2012[illegible]3 [illegible]2011[illegible]21 [illegible] ,[illegible]2013[illegible]13 [illegible]“[illegible]”[illegible], [illegible], [illegible], [illegible],[illegible]2015[illegible] 8 [illegible] [illegible]“[illegible]”[illegible]2014[illegible] 143 [illegible] ,[illegible] 2015 [illegible] 2020 [illegible] 2030 [illegible] $10.11\times10^8m^3$ [illegible]

$10.89\times10^8m^3$ [illegible] $11.51\times10^8m^3$,[illegible]: 2020 [illegible] $1\times10^8m^3$, 2030 [illegible] $2\times10^8m^3$[illegible]

[illegible], [illegible], [illegible]“[illegible]”[illegible] 6-2-2~6-2-5[illegible]

[illegible] **6-2-2** [illegible] **([illegible]: $10^4m^3$)**

| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|
| 2015 [illegible] | 7695 | 4830 | 55917 | 68442 |
| 2020 [illegible] | 10198 | 6860 | 48282 | 65340 |
| 2030 [illegible] | 15608 | 8170 | 37102 | 60880 |

[illegible] **6-2-3** [illegible] **([illegible]: $10^4m^3$)**

| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|
| 2015 [illegible] | 26942 | 39960 | 1540 | 68442 |
| 2020 [illegible] | 27050 | 36490 | 1800 | 65340 |
| 2030 [illegible] | 27050 | 31230 | 2600 | 60880 |

[illegible]:[illegible]

[illegible] **6-2-4** [illegible]

| [illegible] | [illegible] ([illegible]) | [illegible] | [illegible] ($m^3$/[illegible]) | [illegible] ($m^3$/[illegible]) |
|---|---|---|---|---|
| 2015 [illegible] | 99 | 0.6 | 474 | 51 |
| 2020 [illegible] | 72 | 0.65 | 465 | 44 |
| 2030 [illegible] | 76 | 0.65 | 455 | 31 |

[illegible]:[illegible]

[illegible] **6-2-5** [illegible]

| [illegible] | | | | | [illegible] | | |
|---|---|---|---|---|---|---|---|
| [illegible] | [illegible] | [illegible] | | [illegible] | 2015 [illegible] | 2020 [illegible] | 2030 [illegible] |
| | | [illegible] | [illegible] | | | | |
| [illegible] | | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | | | | | 100% | 100% | 100% |

(3)[illegible]

[illegible],[illegible]“[illegible]”[illegible] 14 [illegible], [illegible]

[illegible]“[illegible]”[illegible]“[illegible]”[illegible], [illegible]2008[illegible]3398 [illegible]: [illegible]

[illegible] , [illegible] ([illegible], 2011 [illegible] 10 [illegible])[illegible],[illegible], [illegible], [illegible]“[illegible]”[illegible], [illegible], [illegible], [illegible], [illegible],[illegible]

[illegible], [illegible]: [illegible]2015[illegible]31 [illegible]2015[illegible]47 [illegible]2015[illegible]70 [illegible] 2020 [illegible],[illegible] $4200\times10^4m^3$, [illegible], [illegible] $6.9540\times10^8m^3$[illegible], [illegible] $1.1998\times10^8m^3$, [illegible] $4383\times10^4m^3$,[illegible] $5.3159\times10^8m^3$,[illegible] $460m^3$/[illegible] 2020 [illegible] 35 [illegible],[illegible] $1.61\times10^8m^3$,[illegible] 2013 [illegible] $6.79\times10^8m^3$ [illegible] $5.18\times10^8m^3$ [illegible], 2015 [illegible], [illegible], 2030 [illegible] 2020 [illegible] $6.9540\times10^8m^3$ [illegible], [illegible] 2030 [illegible], [illegible]

[illegible] 85%[illegible],[illegible],[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

[illegible] 2015 [illegible] 6 [illegible] 12 [illegible],[illegible],[illegible] 2014 [illegible] 62 [illegible], [illegible] 1131 [illegible],[illegible] 8700 [illegible],[illegible]

### (4)[illegible]

[illegible]“[illegible]”[illegible], [illegible],[illegible] ([illegible], 2007 [illegible] 11 [illegible])[illegible],[illegible]~[illegible] 2015 [illegible] 90 [illegible] 12.3 [illegible],[illegible] $7863\times10^4m^3$ [illegible],[illegible] $793\times10^4m^3$,[illegible] $7070\times10^4m^3$,[illegible]

[illegible] ([illegible], 2011 [illegible] 10 [illegible])[illegible], [illegible] 2/3 [illegible], [illegible] 2015 [illegible]~[illegible] P=97%[illegible], [illegible] 2560 [illegible], [illegible] $256\times10^4m^3$ [illegible], [illegible] 9.3 [illegible],[illegible] $2460\times10^4m^3$, [illegible] $2716\times10^4m^3$; [illegible] P=97%[illegible] 10~20%[illegible] $1207.1\times10^4m^3$; [illegible], [illegible] $1214\times10^4m^3$[illegible]

[illegible] 10 [illegible],[illegible],[illegible] 2015 [illegible] $1927\times10^4m^3$,[illegible] $1514\times10^4m^3$[illegible]

[illegible], [illegible], [illegible] 2020 [illegible], [illegible], [illegible]([illegible])[illegible],[illegible] $457.15\times10^4m^3$[illegible]2 [illegible], [illegible], [illegible]([illegible])[illegible] $802\times10^4m^3$[illegible]

[illegible],[illegible] 2015 [illegible],[illegible],[illegible],[illegible] $7496.15\times10^8m^3$[illegible]

### 6.2.1.4 [illegible]

(1) [illegible]

[illegible],[illegible],[illegible] 1306m$^3$,[illegible] 1700m$^3$,[illegible] 3900m$^3$ [illegible],[illegible] $7.31\times10^3$m$^3$/km$^2$ [illegible],[illegible], [illegible], [illegible], [illegible],[illegible],[illegible]

(2) [illegible]

[illegible] 85.8%, [illegible],[illegible] GDP [illegible] 3.6% , [illegible]

(3) [illegible]

“[illegible]”[illegible], [illegible], [illegible], [illegible], [illegible], “[illegible]”[illegible]

(4) [illegible]

[illegible],[illegible],[illegible] 72% ,[illegible],[illegible], [illegible], [illegible],[illegible]

(5) [illegible]

[illegible] 60~70 [illegible], [illegible], [illegible];[illegible],[illegible], [illegible], [illegible], [illegible], [illegible],[illegible],[illegible],[illegible],[illegible]

## 6.2.2 [illegible]

### 6.2.2.1 [illegible]

(1)[illegible]

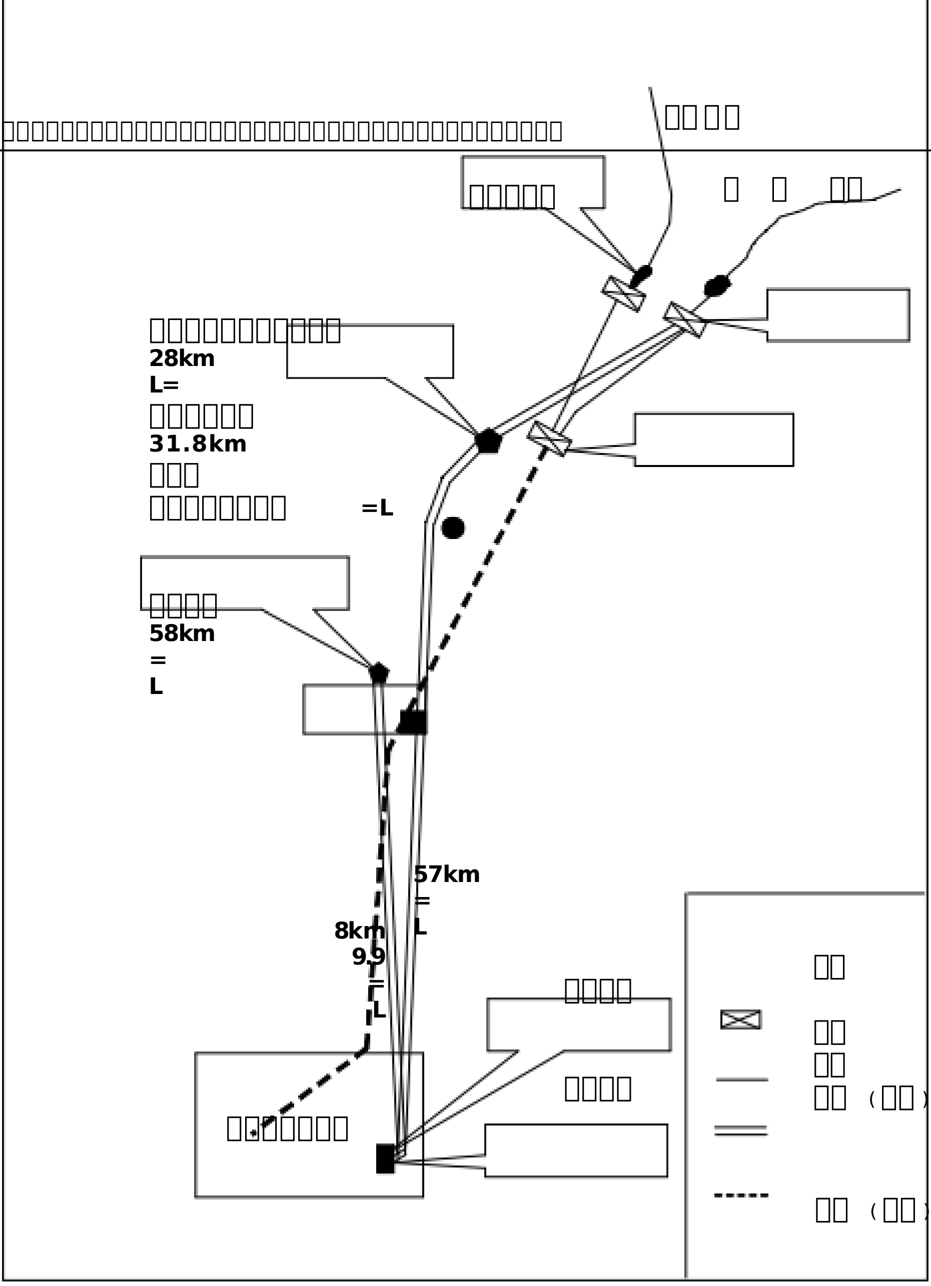
[illegible]3.1km[illegible],[illegible]DN600~1200[illegible]28km[illegible], [illegible]0.80$m^3$/s;[illegible] 31.8km [illegible] DN500 ~ 600 [illegible],[illegible] 1000×$10^4 m^3$/a;[illegible],[illegible]57km[illegible]DN400,[illegible]400×$10^4 m^3$/a, [illegible]4[illegible]2000$m^3$[illegible]8000$m^3$ [illegible]116.8km,[illegible]([illegible]4-10)[illegible]

[illegible] 530m, [illegible]([illegible]) [illegible] 196m[illegible] 2m [illegible],[illegible],[illegible] i≈3‰[illegible], [illegible]

[illegible], [illegible],[illegible]

(2)[illegible]

[illegible] (12.0Mt/a) [illegible], [illegible] 2015 [illegible], [illegible], [illegible], [illegible] 119.01×$10^4 m^3$[illegible],2015 [illegible], [illegible] 97%[illegible] 2245×$10^4 m^3$ ,[illegible] 1280×$10^4 m^3$ ,[illegible] 965×$10^4 m^3$[illegible] 1913.08×$10^4 m^3$ , [illegible] 1000×$10^4 m^3$ , [illegible] 240×$10^4 m^3$ [illegible], [illegible] 948.08×$10^4 m^3$ [illegible] 119.01×$10^4 m^3$ ,[illegible] 5.4% [illegible],[illegible]


28km
L=
31.8km
=L
58km
=
L
57km
=
L
8km
9.9
=
L

[illegible] **6.2-1** [illegible]

(3) [illegible]

[illegible]±800kV [illegible]±800kV [illegible] ([illegible], 2011 [illegible] 10 [illegible]) [illegible], [illegible]~[illegible], [illegible]

[illegible] $1580\times10^4\mathrm{m}^3$, [illegible] $2324\times10^4\mathrm{m}^3$, [illegible]~[illegible]: [illegible]

[illegible] $1399\times10^4m^3$, [illegible] $252\times10^4m^3$ [illegible] $1369.68\times10^4m^3$, [illegible] $141.01\times10^4m^3$ [illegible] $129\times10^4m^3$, [illegible] 10.0Mt/a [illegible], [illegible] $147.7\times10^4m^3$, [illegible] $566m^3/d$ [illegible] $18.7\times10^4m^3/a$ [illegible]

[illegible], [illegible] 6640MW [illegible] 18.60Mt/a [illegible], [illegible] $252\times10^4m^3$ [illegible], [illegible] $248.01\times10^4m^3$, [illegible] $252\times10^4m^3$ [illegible], [illegible]

[illegible], [illegible] 10.0Mt/a [illegible], [illegible] $1500\sim2000m^3/d$, [illegible], [illegible] $50\times10^4m^3/a$ [illegible], [illegible], [illegible]

(4) [illegible]

[illegible], [illegible], [illegible] (GB5749—2006) [illegible], [illegible], [illegible] (GB5749—2006), [illegible], [illegible], [illegible], [illegible], [illegible]

### 6.2.2.2 [illegible]

(1) [illegible]

[illegible], [illegible], [illegible]

[illegible],[illegible]

[illegible] $4.52\times10^8m^3$，[illegible]，[illegible] $3.57\times10^8m^3$，[illegible] $2.49\times10^8m^3$,[illegible] $7.79\times10^8m^3$，[illegible]，[illegible]，[illegible]，[illegible]“[illegible]”[illegible],[illegible]，[illegible]，[illegible]

2015 [illegible] $7695\times10^4m^3$,[illegible]，[illegible]

[illegible]，[illegible]，[illegible]，[illegible] 97%[illegible],[illegible] $1200\times10^4m^3$;[illegible] $2245\times10^4m^3$,[illegible] $1280\times10^4m^3$;[illegible] $800\times10^4m^3$，[illegible]；[illegible] $950\times10^4m^3$，[illegible] $500\times10^4m^3$;[illegible] $1500\times10^4m^3$ [illegible] $5280\times10^4m^3$ [illegible]([illegible])~[illegible] $1365.84\times10^4m^3$;[illegible] $948.08\times10^4m^3$;[illegible] $1030\times10^4m^3$;[illegible] $1501.75\times10^4m^3$ [illegible] $4845.67\times10^4m^3$[illegible]

[illegible] $119.01\times10^4m^3$,[illegible] $240\times10^4m^3$,[illegible]

[illegible]±800kV [illegible]，[illegible] 10.0Mt/a [illegible],[illegible] $1500\sim2000m^3/d$,[illegible] $147.7\times10^4m^3$,[illegible] $566m^3/d$[illegible]$18.7\times10^4m^3/a$[illegible] $248.01\times10^4m^3$,[illegible] $252\times10^4m^3$ [illegible],[illegible]

[illegible]，[illegible]，[illegible]，[illegible]

(2)[illegible]

[illegible]，[illegible]，[illegible]，[illegible]，[illegible]，[illegible]，[illegible]，[illegible]

[illegible]，[illegible]，[illegible]，[illegible],[illegible],[illegible]

(3)[illegible]

[illegible]，[illegible]，[illegible]“[illegible]”[illegible]

### 6.2.2.3 [illegible]

(1)[illegible]

[illegible]~[illegible]，[illegible]，[illegible]，[illegible],[illegible]([illegible]<75%),[illegible]，[illegible]，[illegible]，[illegible];[illegible]([illegible]>75%),[illegible],[illegible]

(2)[illegible]

[illegible]，[illegible]，[illegible]

[illegible] ([illegible]

[illegible], 2011 [illegible] 10 [illegible]) [illegible], [illegible] 91% , [illegible] 2560 [illegible] 9.3 [illegible], [illegible] 2716×$10^4m^3$ , [illegible] 1580×$10^4m^3$ , [illegible] 1399×$10^4m^3$[illegible]

[illegible], [illegible], [illegible], [illegible]

(3) [illegible]

[illegible], [illegible], [illegible], [illegible]

[illegible], [illegible], [illegible], [illegible]

[illegible], [illegible], [illegible], [illegible]

## 6.2.3 [illegible]

### 6.2.3.1 [illegible]

[illegible] SS, [illegible]; [illegible] COD[illegible]$BOD_5$[illegible]SS [illegible]

(1) [illegible]“[illegible]+[illegible]”[illegible], [illegible], [illegible] (GB50383-2006)[illegible], [illegible] (GB/T 18920 __ 2002)[illegible]

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible]

(2)[illegible],[illegible], [illegible], [illegible] (GB50335__2002) [illegible],[illegible], [illegible], [illegible], [illegible], COD[illegible]BOD5 [illegible] 80%[illegible], SS [illegible] 95%[illegible],[illegible], [illegible],[illegible],[illegible]

[illegible],[illegible]

(3)[illegible]

[illegible],[illegible],[illegible]

[illegible], [illegible], [illegible]“[illegible]”[illegible], [illegible], [illegible], [illegible], [illegible]

### 6.2.3.2 [illegible]

[illegible], [illegible]

[illegible], [illegible], [illegible], [illegible],[illegible] V=8000m$^3$,[illegible],[illegible],[illegible]

[illegible] (GB50359—2005), [illegible], [illegible], [illegible], [illegible]

[illegible] 2 [illegible] Φ35 [illegible], 1 [illegible] 1 [illegible],[illegible]

## 6.3 [illegible]

### 6.3.1 [illegible]

(1)[illegible]

[illegible] (GB24789—2009), [illegible], [illegible]; [illegible];[illegible],[illegible]; [illegible],[illegible]

(2)[illegible]

[illegible], [illegible], [illegible],[illegible]

(3)[illegible]

[illegible], [illegible], [illegible],[illegible],[illegible],[illegible]

(4)[illegible]

[illegible],[illegible],[illegible] 6~8 [illegible],[illegible]; [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible],[illegible],[illegible]

[illegible],[illegible]

(5)[illegible]

[illegible], [illegible], [illegible],[illegible],[illegible],[illegible],

[illegible],[illegible],[illegible]

(6)[illegible]

[illegible]: [illegible], [illegible]

[illegible], [illegible], [illegible],[illegible],[illegible]

[illegible], [illegible], [illegible], [illegible],[illegible]

[illegible], [illegible] $BOD_5$[illegible]SS[illegible]COD[illegible],[illegible],[illegible],[illegible]

## 6.3.2 [illegible]

(1)[illegible]

[illegible] (GB/T12452—2008)[illegible],[illegible],[illegible]“[illegible]” [illegible]

(2)[illegible],[illegible]:

① [illegible]“[illegible]”, [illegible],[illegible]

② [illegible],[illegible]

③ [illegible],[illegible],[illegible]

[illegible]:

① [illegible], [illegible], [illegible],[illegible]

② [illegible], [illegible], [illegible]

[illegible],[illegible]

③ [illegible], [illegible],[illegible]

④ [illegible], [illegible]

⑤ [illegible], [illegible], [illegible],[illegible], [illegible]

⑥ [illegible],[illegible]

⑦ [illegible], [illegible],[illegible],[illegible]

(3) [illegible]

[illegible],[illegible]

① [illegible],[illegible]

② [illegible],[illegible]

③ [illegible], [illegible]

④ [illegible],[illegible], [illegible],[illegible],[illegible]([illegible]) [illegible]

⑤ [illegible],[illegible]

⑥ [illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

## 6.3.3 [illegible]

(1) [illegible]

① [illegible]:[illegible], pH[illegible]SS[illegible]COD[illegible]BOD[illegible]$NH_3$-N[illegible]

[illegible]:[illegible]

[illegible]: [illegible], [illegible]; [illegible] pH[illegible]SS[illegible] COD;[illegible] $BOD_5$[illegible]$NH_3$-N[illegible]

② [illegible]:

[illegible]:[illegible]

[illegible]:[illegible] pH[illegible]SS[illegible]COD[illegible]$BOD_5$ ;[illegible]

③ [illegible]: pH[illegible]SS[illegible]COD[illegible]

[illegible]:[illegible]

[illegible]:[illegible];[illegible]

[illegible]:[illegible]

[illegible]

(2)[illegible]

[illegible],[illegible],[illegible], [illegible], [illegible], [illegible]

① [illegible], [illegible], [illegible], [illegible],[illegible],[illegible],[illegible]

② [illegible], [illegible]

③ [illegible], [illegible]; [illegible],[illegible]; [illegible], [illegible],[illegible]

④ [illegible], [illegible]

⑤ [illegible],[illegible]

⑥ [illegible], [illegible]

[illegible],[illegible],[illegible]

## 6.4 [illegible]

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]~[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

[illegible], [illegible],[illegible]“[illegible]”[illegible],[illegible]

# 7.[illegible]

## 7.1 [illegible]

[illegible],[illegible],[illegible],[illegible] [illegible],[illegible]

## 7.2 [illegible]

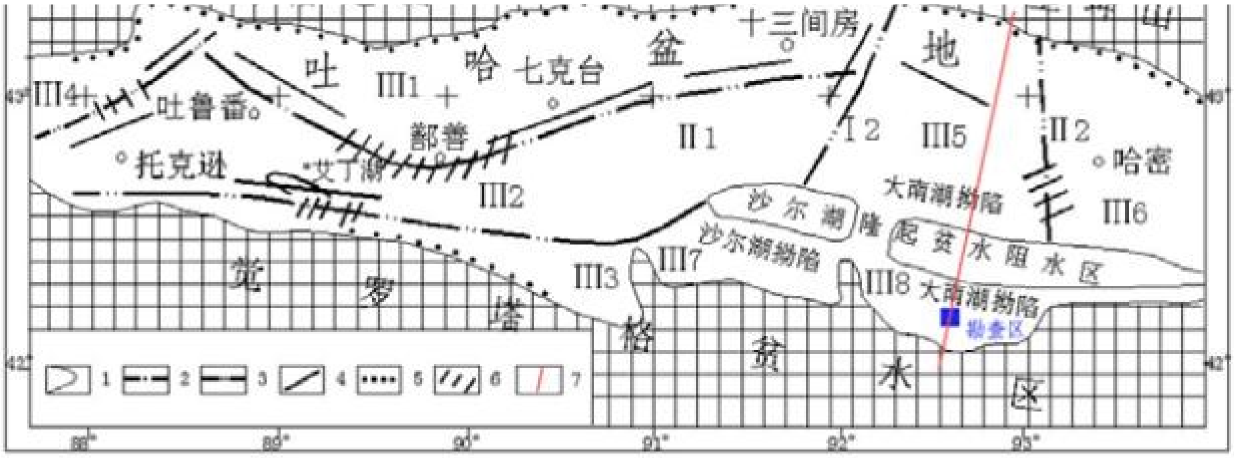
### 7.2.1 [illegible]

#### 7.2.1.1 [illegible]

[illegible], [illegible]

[illegible], [illegible] 226 [illegible], [illegible] 180.9km$^2$ , [illegible] 65 [illegible] m$^3$ , [illegible], [illegible],[illegible],[illegible]

[illegible], [illegible](Ⅲ1)[illegible](Ⅲ2)[illegible](Ⅲ3)[illegible](Ⅲ4)[illegible](Ⅲ5)[illegible](Ⅲ6)[illegible](Ⅲ7)[illegible](Ⅲ8) 8 [illegible]([illegible] 7.2-1)[illegible]


十三间房
吐
哈
盆
地
III1
七克台
III4
吐鲁番
鄯善
I2
III5
II2
哈密
II1
托克逊
艾丁湖
III2
大南湖坳陷
III6
沙尔湖隆起
贫水阻水区
沙尔湖坳陷
III7
III3
III8
大南湖坳陷
勘查区
觉
罗
塔
格
贫
水
区
1
2
3
4
5
6
7
43°
42°
88°
89°
90°
91°
92°
93°

[illegible]: 1. Ⅰ[illegible];2. [illegible];3.Ⅲ[illegible];4.[illegible]; 5.[illegible];6.[illegible];7.[illegible] ([illegible] 3-6) ; Ⅰ$_1$ —[illegible]; Ⅰ$_2$—[illegible];[illegible]$_1$—[illegible]; [illegible]$_2$—[illegible]

[illegible] **7.2-1** [illegible]

[illegible] 400~600m, [illegible] 30~50m, [illegible],[illegible],[illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible],[illegible]

[illegible], [illegible], [illegible]([illegible] 7.2-2)[illegible],[illegible],[illegible]; [illegible], [illegible], [illegible], [illegible]; [illegible], [illegible],[illegible]

[illegible],[illegible](Ⅲ$_8$ )[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible]

### 7.2.1.2 [illegible] (Ⅲ8) [illegible] ([illegible]) [illegible] ([illegible]) [illegible]

(1)[illegible]

① [illegible]

[illegible],[illegible]-[illegible], [illegible], [illegible],[illegible] 100.64~755.73m,[illegible] 382.69m,[illegible] 0. 1787m/d, [illegible] 0. 16L/s·m[illegible],[illegible],[illegible] Cl-Na [illegible],[illegible] 10.9g/L , pH [illegible] 7.47[illegible]

② [illegible]

[illegible], [illegible], [illegible],[illegible],[illegible] 130m[illegible], [illegible], [illegible], [illegible], [illegible]

(2)[illegible]

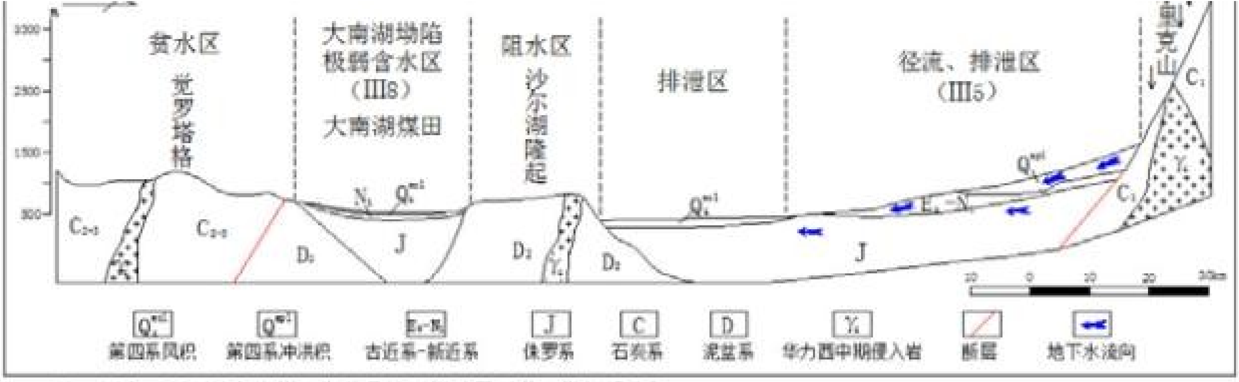
[illegible],[illegible],[illegible],[illegible],[illegible] 0~100m , [illegible] 5~20m[illegible],[illegible], [illegible], [illegible], [illegible],[illegible]

### 7.2.1.3 [illegible]

[illegible](... 7.2-2)[illegible], [illegible], [illegible]

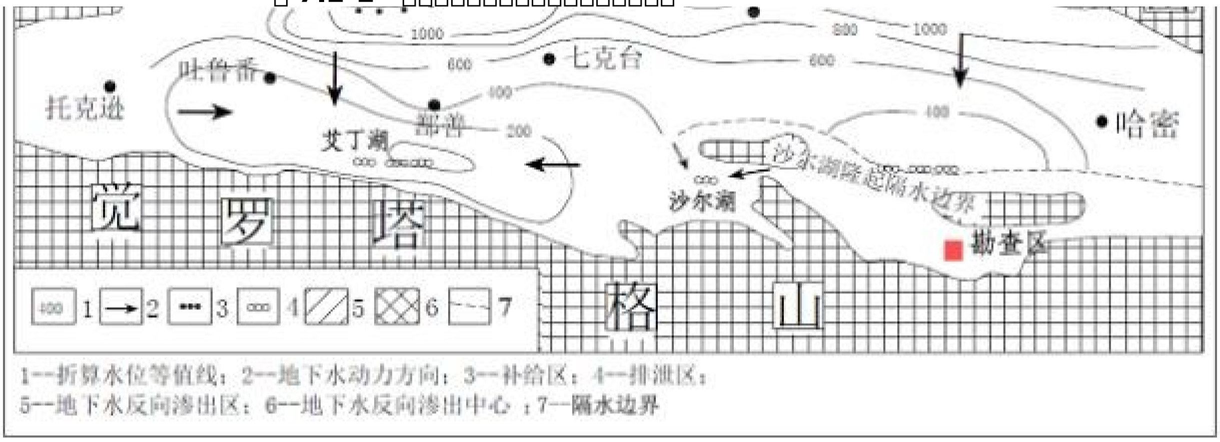
[illegible], [illegible], [illegible]
[illegible], [illegible]

[illegible], [illegible], [illegible], [illegible], [illegible] ([illegible]) [illegible], [illegible] ([illegible] 7.2-3) [illegible]


3300
2500
1500
500
贫水区
觉罗塔格
大南湖坳陷
极弱含水区
（III8）
大南湖煤田
阻水区
沙尔湖隆起
排泄区
径流、排泄区
（III5）
剌克山
$C_{2-3}$
$D_2$
J
$N_1$
$Q_4^{eol}$
$\gamma_4$
$C_1$
$E_s-N_1$
10 0 10 20 30km
第四系风积
第四系冲洪积
古近系-新近系
侏罗系
石炭系
泥盆系
华力西中期侵入岩
断层
地下水流向

注：源自《新疆沙尔湖煤田鄯善县沙西煤矿露天井田勘探报告》。

[illegible] **7.2-2** [illegible]


1000
800
600
400
200
托克逊
吐鲁番
七克台
鄯善
艾丁湖
沙尔湖
哈密
沙尔湖隆起隔水边界
勘查区
觉
罗
塔
格
山
1
2
3
4
5
6
7

1--折算水位等值线；2--地下水动力方向；3--补给区；4--排泄区；
5--地下水反向渗出区；6--地下水反向渗出中心 ；7--隔水边界

[illegible]: [illegible]

[illegible] **7.2-3** [illegible]

## 7.2.1.4 [illegible]

[illegible], [illegible]:

(1) 1~3 [illegible],[illegible],[illegible] 3 [illegible]: [illegible]

[illegible]

(2)4~8 [illegible], [illegible], [illegible],[illegible]9~10 [illegible],[illegible]

(3) 10~12 [illegible], [illegible] 10 [illegible], [illegible], [illegible],[illegible]

[illegible]

## 7.2.2 [illegible]

### 7.2.2.1 [illegible]

[illegible], [illegible], [illegible], [illegible]+510~+630m, [illegible]50m[illegible], [illegible],[illegible],[illegible]([illegible] 7.2-4)[illegible]

[illegible] 7.2-4 [illegible]

### 7.2.2.2 [illegible]

[illegible], [illegible] ($J_2x$)[illegible]

[illegible] B [illegible], [illegible] (Q)[illegible] ($N_1t$)[illegible] ($J_2t$)[illegible] ($J_2x$)[illegible] ($C_2wt$)[illegible]:

1[illegible] (Q)

[illegible],[illegible],[illegible],[illegible],[illegible] 0.85~33.98m,[illegible] 10.43m[illegible]

2[illegible] ($N_1t$)

[illegible], [illegible] 4.26~188.80m,[illegible] 53.75m[illegible]

3[illegible] (J)

(1)[illegible] ($J_2t$)

[illegible];[illegible],[illegible]; [illegible], [illegible] 118.73m[illegible]

(2)[illegible] ($J_2x$)

[illegible], [illegible], [illegible],[illegible] 102.96~912.05m,[illegible] 419.21m,[illegible], [illegible]→[illegible]→[illegible], [illegible], [illegible] ($J_2x_3$)[illegible] ($J_2x_2$)[illegible] ($J_2x^1$ )[illegible]

① [illegible] ($J_2x_3$)

[illegible]: [illegible], [illegible]; [illegible], [illegible], [illegible]

[illegible] 125.21m[illegible]

[illegible], [illegible], [illegible], [illegible] 0.30m [illegible] 3 [illegible],[illegible],[illegible] 3.37m,[illegible] 5~36m [illegible],[illegible],[illegible] 3 [illegible],[illegible]

② [illegible] ($J_2x_2$)

[illegible], [illegible], [illegible], [illegible] 118.08~252.00m,[illegible] 154. 17m[illegible]

[illegible],[illegible] 0.30m [illegible] 15 [illegible],[illegible],[illegible] 3 [illegible] 4 [illegible] 5 [illegible] 6 [illegible] 7 [illegible] 8 [illegible] 9 [illegible] 10 [illegible] 11 [illegible] 12 [illegible] 13 [illegible] 14 [illegible] 15 [illegible] 16 [illegible] 17 [illegible],[illegible] 47.02m,[illegible] 38.56m,[illegible] 30.50%[illegible] 7 [illegible] 15 [illegible], 7 [illegible] 1.41~19.63m [illegible], [illegible] 10.41m; 15 [illegible] 1.21~19.17m [illegible], [illegible] 7.40m[illegible]

③ [illegible] ($J_2x_1$)

[illegible],[illegible], [illegible], [illegible],[illegible] 84.11~235. 13m,[illegible] 145.57m[illegible]

[illegible],[illegible],[illegible],[illegible],[illegible],[illegible] 0.30m [illegible] 14 [illegible],[illegible] 12 [illegible],[illegible] 18 [illegible] 19 [illegible] 20 [illegible] 21 [illegible] 22 [illegible] 23 [illegible] 24 [illegible] 25 [illegible] 26 [illegible] 27 [illegible] 28 [illegible] 29 [illegible],[illegible] 45.42m,[illegible] 29.84m,[illegible] 31.20% , [illegible] 25 [illegible]-[illegible],[illegible] 1.73~18.66m [illegible],[illegible] 9.55m[illegible]

4 [illegible] ($C_2wt$)

[illegible],[illegible]-[illegible], [illegible] 5982m, [illegible] 16.82m[illegible]

#### 7.2.2.3 [illegible]

[illegible] 7.2-3 [illegible]:[illegible],[illegible], [illegible], [illegible], [illegible]

[illegible], [illegible], [illegible] 180km, [illegible] 5~25km, [illegible] 2300km$^2$ [illegible], [illegible], [illegible]

[illegible] (DW): [illegible], [illegible] 170km [illegible], [illegible], [illegible], [illegible] 3° ~ 13°, [illegible], [illegible] 14°~26° [illegible] ([illegible]) [illegible] 2º ~ 4º, [illegible], [illegible] 5º~8°; [illegible] 2º~4º, [illegible] 9º~11° [illegible] ([illegible]) [illegible], [illegible] 5º~12º, [illegible], [illegible] 16º ~ 30º [illegible], [illegible]-[illegible]

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible] 50~150m[illegible]

### 7.2.2.4 [illegible]

1 [illegible]

[illegible], [illegible], [illegible], [illegible], [illegible]

2 [illegible] ([illegible]) [illegible]

(1) [illegible]

[illegible], [illegible], [illegible], [illegible] 0.85~33.98m, [illegible] 9.10m [illegible], [illegible]-[illegible], [illegible], [illegible], [illegible] 40mm, [illegible] 3064.3mm [illegible]

[illegible], [illegible] 1.30 ~ 7.40m, [illegible] 35m [illegible]

[illegible]

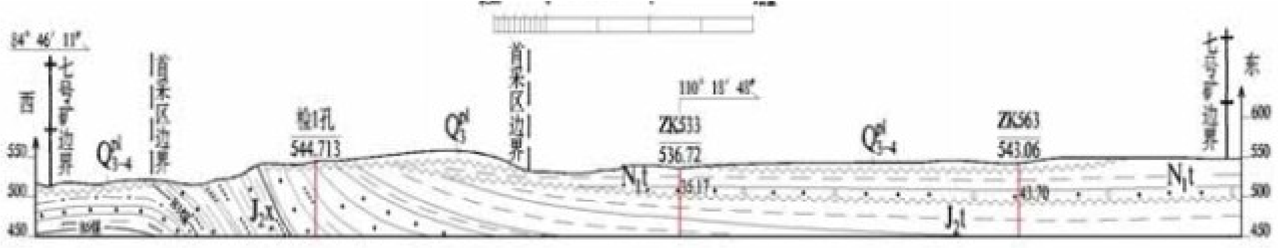
(2) [illegible]

[illegible], [illegible]

[illegible] B [illegible]

[illegible] 4.26~188.80m, [illegible] 53.75m [illegible], [illegible], [illegible], [illegible]

[illegible] B [illegible] ZK533 [illegible], [illegible], [illegible] ([illegible] 7.2-5 [illegible] 7.2-6), [illegible], [illegible], [illegible], [illegible], [illegible]


84° 46′ 11″
西
七号矿边界
首采区边界
550
500
450
$Q_{3-4}^{pl}$
检1孔
544.713
$J_2x$
$Q_3^{pl}$
首采区边界
110° 15′ 40″
ZK533
536.72
$N_1t$
26.17
$Q_{3-4}^{pl}$
ZK563
543.06
$J_1t$
43.70
$N_1t$
七号矿边界
东
600
550
500
450

[illegible] **7.2-6** [illegible]

(3) [illegible]

[illegible]; [illegible], [illegible]; [illegible] B [illegible] 118.73m [illegible], [illegible], [illegible] 3.85~ 25.87L/m, [illegible] ([illegible] 7-2-1), [illegible] 1 [illegible], [illegible]) [illegible]: [illegible] 85.22~120.70m, [illegible] +459.493~ +488.233m, [illegible] (q) 0.0058 ~0.00592L/s·m, [illegible] (K) [illegible] 0.0065 ~ 0.009574m/d [illegible] +473.40m [illegible], [illegible] 72.6m, [illegible] $27m^3/h$ ([illegible] 7-2-2) [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], PH [illegible] 7.58, [illegible] $Cl·SO_4$-Na [illegible] Cl-Na [illegible] ([illegible] 2-6), [illegible] 5.061~13.624g/L[illegible]

[illegible] **7-2-1** [illegible]

| [illegible] | [illegible] (m) | [illegible] | [illegible] | [illegible] (m) | [illegible] (m) | [illegible] | [illegible] Q | [illegible] q | [illegible] | [illegible] |
|---|---|---|---|---|---|---|---|---|---|---|

|  |  | □ (m) | □ (m) | □□<br>□□ | □□□<br>□ |  | (m) | (m$^3$/d) | (L/s·m) | *R* (m) | *K* (m/d) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ZK533 | 904.04 | 120.70 | 53.49 | 48.49 | 488.233 | 35.31 | 0.0635 | 18.06 | 0.00592 | 34.55 | 0.009574 |
| □ 1 □ | 439.89 | 85.22 | 17 | 85.22 | 459.493 | 24.31 | 0.055 | 12.24 | 0.0058 | 19.60 | 0.0065 |

[illegible] **7-2-2** [illegible]

| [illegible] | [illegible] | [illegible] m | [illegible] m | [illegible] $m^3/h$ |
|---|---|---|---|---|
| 1 | $J_2t$ | +399.01~+391.40 | 7.61 | 15 |
| 2 | $J_2t$ | +382.05~+379.56 | 2.49 | 12 |
| 3 | $J_2x$ | +371.62~+367.90 | 3.72 | 8 |

[illegible]**:** [illegible]

### (4)[illegible]

[illegible], [illegible], [illegible] 85.05~ 329. 16m,[illegible]+425.928~+470.78m,[illegible] B [illegible] ZKJ303[illegible] ZK486[illegible]ZK492[illegible]ZK533 [illegible] 1[illegible] 2 [illegible] A [illegible] ZK453[illegible] ZDT-ZK01 [illegible]([illegible] 7-2-3)[illegible]:[illegible] ($q$) 0.0023~0.0318L/s·m,[illegible] (K)[illegible] 0.00259~0.0355m/d, [illegible], [illegible]+371.62m [illegible],[illegible] 174.38m,[illegible] 8$m^3$/h ([illegible] 7-2-2)[illegible],[illegible] Cl-Na [illegible], [illegible] 1.06~ 14.53g/L , PH [illegible] 7.18~7.90([illegible] 7-2-4); [illegible] 8.72~ 11.7g/L , PH [illegible] 7.57~9.31[illegible]

[illegible] **7-2-4** [illegible]

| [illegible] | [illegible] (m) | [illegible] (m) | [illegible] (m) | [illegible] (m) | | [illegible] (m) | [illegible] (m) | [illegible] $Q$ ($m^3$/d) | [illegible] $q$ (L/s·m) | [illegible] $R$ (m) | [illegible] $K$ (m/d) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [illegible] | [illegible] | | | | | | |
| ZKJ303 | 443.67 | 188.28 | 71.92 | 72.17 | 470.78 | 4.50 | 0.054 | 12.355 | 0.0318 | 20.6 | 0.0355 |
| | | | | | | 7.71 | | 20.995 | 0.0315 | 14.0 | 0.0330 |
| | | | | | | 10.93 | | 29.635 | 0.0314 | 7.69 | 0.0292 |
| ZK486 | 573.60 | 98.96 | 29.89 | 58.87 | 459.38 | 16.99 | 0.094 | 9.16 | 0.0062 | 21.19 | 0.01556 |
| ZK492 | 550.24 | 116.10 | 36.43 | 62.51 | 465.671 | 29.41 | 0.064 | 17.25 | 0.0068 | 37.59 | 0.01634 |
| [illegible] 1 [illegible] | 439.89 | 154.68 | 80 | 74.14 | 470.573 | 84.7 | 0.055 | 16.56 | 0.0023 | 43.11 | 0.00259 |
| [illegible] 2 [illegible] | 226.16 | 123.86 | 54 | 74.32 | 470.341 | 83.82 | 0.055 | 28.80 | 0.0040 | 71.37 | 0.00725 |
| ZK453 | 584.06 | 85.05 | 119.79 | 65.43 | 448.839 | 15.19 | 0.0475 | 34.53 | 0.02631 | 20.57 | 0.01834 |
| | | | | | | 10.01 | | 22.77 | 0.02632 | 13.04 | 0.01689 |
| | | | | | | 5.19 | | 11.80 | 0.02632 | 6.31 | 0.01457 |
| ZDT-ZK | 151.0 | 86.0 | 8.8 | 85.50 | 425.928 | 4.20 | 0.0625 | 9.590 | 0.026 | 5.14 | 0.015 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | | | | | | | | | | | |

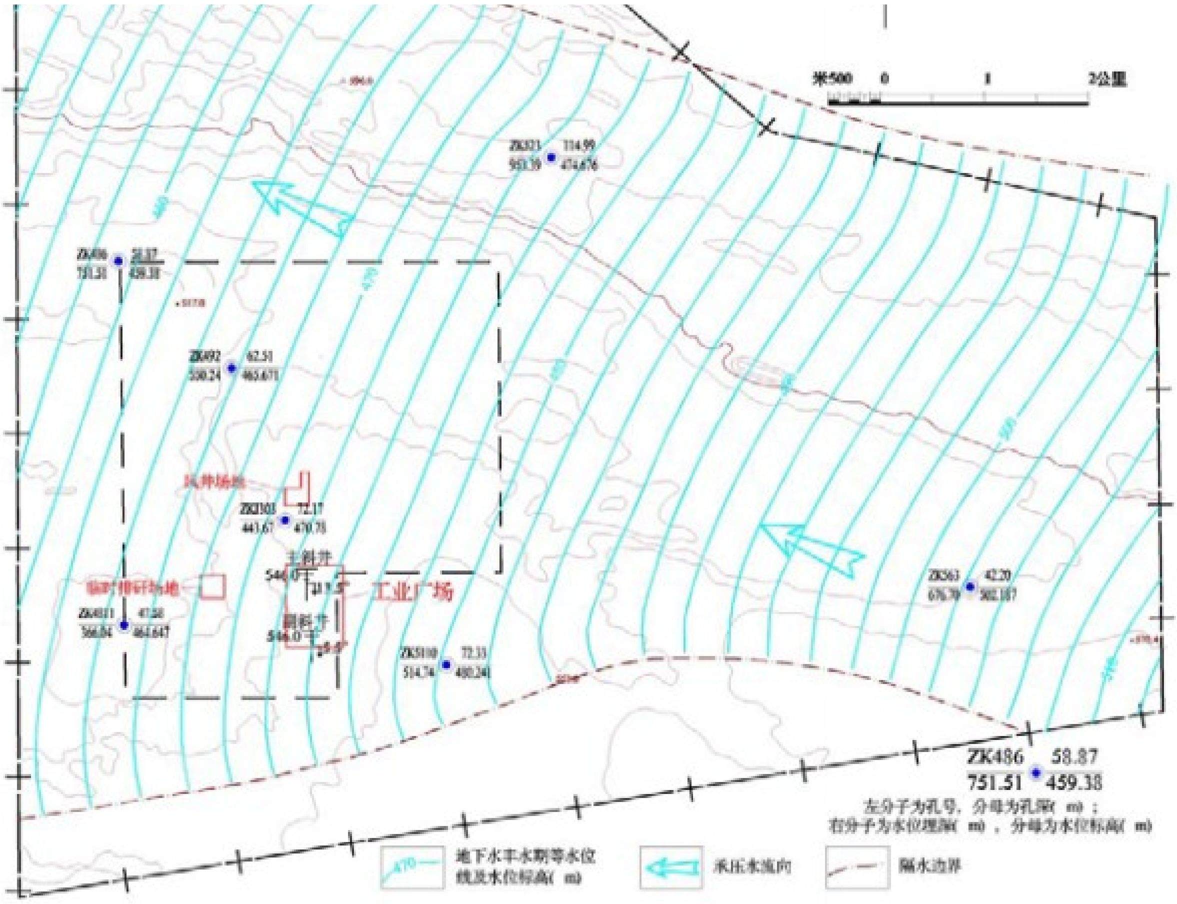
**[illegible] 7-2-5** [illegible]

| [illegible] | [illegible] | [illegible] (mg/l) | [illegible] | pH [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|---|---|
| ZK533 | [illegible] | 5061.1 | Cl·SO$_4$—Na | 7.58 | [illegible] | [illegible] |
| ZKJ303 | | 14527.0 | Cl—Na | 7.35 | [illegible] | [illegible] |
| ZK486 | | 1055.0 | Cl—Na | 7.18 | [illegible] | |
| ZK492 | | 3467.6 | Cl·SO$_4$—Na | 7.90 | [illegible] | |
| [illegible] 2 [illegible] | | 10196.0 | Cl—Na | 7.20 | [illegible] | |
| ZK453 | | 10900.0 | Cl—Na | 7.47 | [illegible] | |
| ZDT-ZK01 | | 5153.8 | Cl—Na | 7.42 | [illegible] | |
| [illegible] 1 [illegible] | | 13624.0 | Cl—Na | 7.50 | [illegible] | [illegible] |

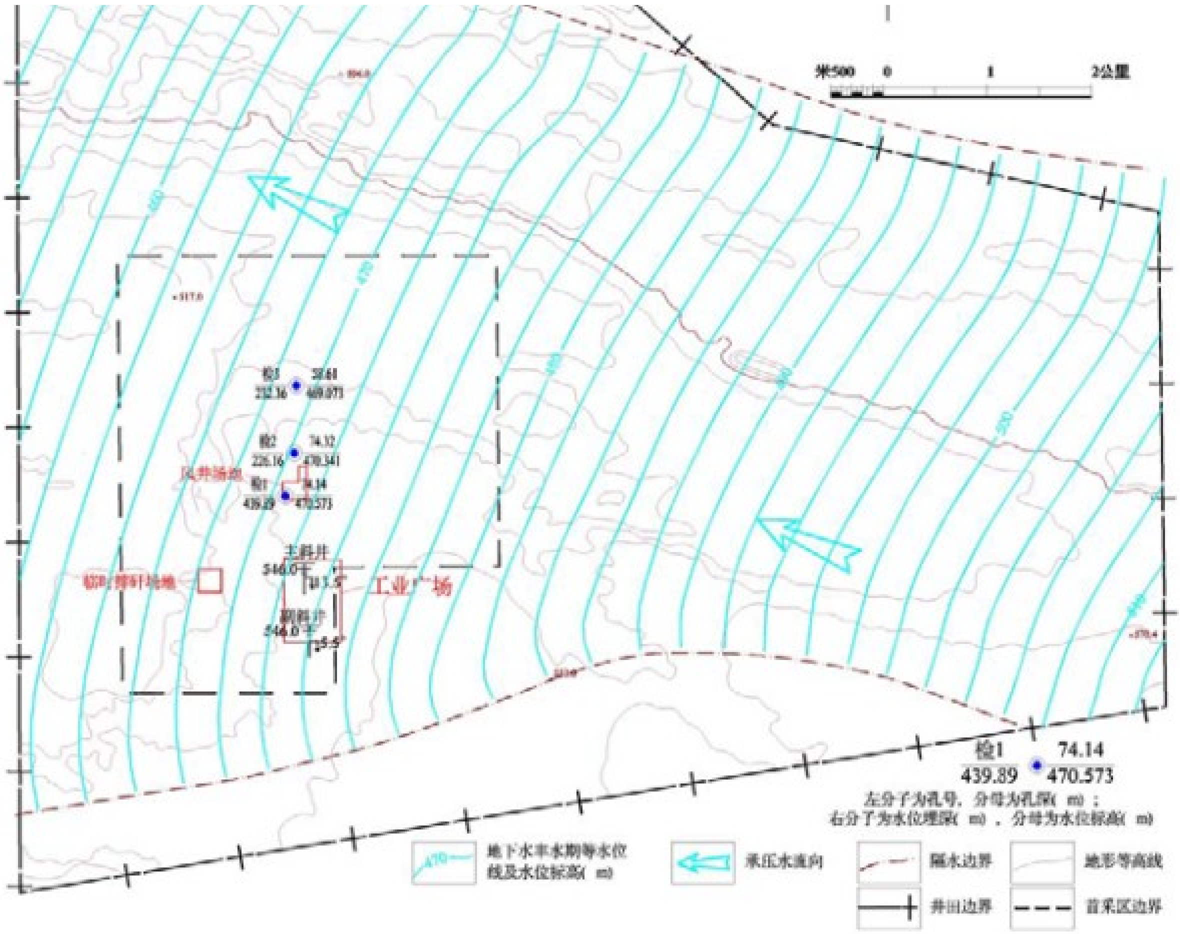
### 3.[illegible]

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible](Ⅰ[illegible] 7.2-7[illegible] 7.2-8), [illegible], [illegible],[illegible],[illegible],[illegible]

[illegible],[illegible]


米500 0 1 2公里
ZK323 114.99
953.39 474.676
ZK486 58.87
751.51 459.38
ZK492 62.51
550.24 465.671
风井场地
ZK3103 72.17
443.67 470.75
主斜井
546.0
工业广场
临时排矸场地
ZK4011 47.20
566.04 464.647
副斜井
546.0
ZK5110 72.33
514.74 480.241
ZK563 42.20
676.70 502.187
460
470
ZK486 58.87
751.51 459.38
左分子为孔号，分母为孔深( m)；
右分子为水位埋深( m)，分母为水位标高( m)
470
地下水丰水期等水位线及水位标高( m)
承压水流向
隔水边界

**[illegible] 7.2-7 [illegible] (2011 [illegible] 8 [illegible]) [illegible]**


米500 0 1 2公里
460
470
480
490
500
510
检3 50.61 232.16 469.073
检2 74.32 226.16 470.341
检1 74.14 439.89 470.573
风井场地
主斜井 546.0
临时排矸场地
工业广场
副斜井 546.0
检1 74.14 439.89 470.573
左分子为孔号，分母为孔深(m)；右分子为水位埋深(m)，分母为水位标高(m)
地下水丰水期等水位线及水位标高(m)
承压水流向
隔水边界
地形等高线
井田边界
首采区边界

□ 7.2-8 □□□ (2012 □ 5 □) □□□□□□□□□□□□□□□

### 7.2.2.5 □□□□□□□□

□□□□□□□□□□□□,□□□□□□□ 40mm,□□□□□□□ 3064.3mm □□□□□□□□□□□□□□□□□□□□□□□□□, □□□□□□□ 3 □□□□□□□□□, 4~8 □□□□□□□□□□□□□□□□□□□□□□□□□□□, □□□□□,□□□□□□□□□□□□ 2~3 □□,□□□□□□□□ 5 □□,□□□□ 8~9 □□□□□□□□□□□□□□□□□□□□□□□ 7.2-7□□ 7.2-8□□ 7-2-6□

[illegible] **7-2-6** [illegible]

| [illegible] | X | Y | H | [illegible](m) | [illegible](m) | [illegible] |
|---|---|---|---|---|---|---|
| ZDT-ZK01 | 4693215.533 | 520649.788 | 511.428 | 77.2 | 434.228 | [illegible] 2011.8 |
| ZKJ303 | 4688716.798 | 528771.628 | 542.95 | 63.37 | 479.58 | |
| ZK486 | 4691203.248 | 527168.216 | 518.25 | 66.27 | 451.98 | |
| ZK492 | 4690176.834 | 528254.565 | 528.181 | 62.51 | 465.671 | |
| ZK4811 | 4687705.845 | 527222.834 | 512.227 | 48.58 | 463.647 | |
| ZK5110 | 4687324.866 | 530321.623 | 552.571 | 68.83 | 483.741 | |
| ZK481 | 4694182.314 | 527345.790 | 591.763 | 137.91 | 453.853 | |
| ZK523 | 4692200.233 | 531331.887 | 589.666 | 114.99 | 474.676 | |
| ZK563 | 4688079.657 | 535361.562 | 544.387 | 42.20 | 502.187 | |
| ZK422 | 4688121.687 | 521089.938 | 500.387 | 69.83 | 430.557 | [illegible] 2012.5 |
| ZK463 | 4686182.547 | 525090.654 | 521.541 | 47.83 | 473.711 | |
| ZK453 | 4689132.938 | 524093.778 | 514.269 | 65.51 | 448.759 | |
| [illegible] 1 | 4688895 | 528795 | 544.713 | 66.50 | 478.213 | |
| [illegible] 2 | 4689306 | 528882 | 544.661 | 69.00 | 475.661 | |
| [illegible] 3 | 4689956 | 528902 | 527.683 | 56.80 | 470.883 | |

## 7.2.3 [illegible]

### 7.2.3.1 [illegible]

[illegible], [illegible]

(1)[illegible]

[illegible]60cm[illegible], [illegible]35.7cm,[illegible]20cm[illegible]([illegible]1000cm$^2$),[illegible],[illegible], [illegible], [illegible], [illegible]Q [illegible]2[illegible],[illegible],[illegible]: V=Q/F[illegible]

[illegible]: V- [illegible] (m/d);

Q- [illegible] (m$^3$/d);

F- [illegible]([illegible]) (m$^2$)[illegible]

[illegible]

V=KI

[illegible]: k——[illegible] (m/d)

I——[illegible]([illegible])[illegible]

[illegible], I [illegible], [illegible] V [illegible]; [illegible], Q [illegible], I [illegible] 1, [illegible] V=K, [illegible] K=Q/F[illegible]

(2) [illegible]

[illegible], [illegible], [illegible], [illegible], [illegible] 3m, [illegible], [illegible] 4m [illegible], [illegible], [illegible], [illegible]

(3) [illegible]

[illegible], [illegible], [illegible], [illegible] 60cm, [illegible] ([illegible] 35.7cm, [illegible] 20cm) [illegible] 5cm ([illegible]), [illegible] 3~5cm [illegible], [illegible]

[illegible] 15~20cm, [illegible] 1mm [illegible], [illegible] 10cm [illegible]([illegible] 7-1) [illegible], [illegible] 10min [illegible], [illegible] 5 [illegible]; [illegible] 20~30min [illegible], [illegible] 10%[illegible], [illegible] 2~4h[illegible]

(4) [illegible]

[illegible] 9 [illegible], [illegible] 9 [illegible], [illegible], [illegible] $3.2\times10^{-3}$~$4.9\times10^{-3}$cm/s; [illegible], [illegible] $3.8\times10^{-3}$~$5.2\times10^{-3}$cm/s; [illegible], [illegible] $5.4\times10^{-4}$~$7.4\times10^{-4}$cm/s ([illegible] 7-2-7)[illegible]

[illegible] 7.2-9 SH01 [illegible]

[illegible] 7-2-7 [illegible]

| [illegible] | [illegible] | | | [illegible] | [illegible](L/s) | [illegible] | | |
|---|---|---|---|---|---|---|---|---|
| | X | Y | [illegible] | | | (m/d) | (cm/s) | |
| SH01 | 4687458 | 528909 | [illegible] | 2014.6.18 | 0.004902 | 4.24 | $4.9\times10^{-3}$ | |
| SH02 | 4687981 | 528874 | | 2014.6.18 | 0.003623 | 3.13 | $3.6\times10^{-3}$ | |
| SH03 | 4688202 | 529167 | | 2014.6.18 | 0.003205 | 2.77 | $3.2\times10^{-3}$ | |
| SH04 | 4689933 | 527326 | | 2014.6.19 | 0.004167 | 3.6 | $4.2\times10^{-3}$ | |
| SH05 | 4690226 | 527399 | | 2014.6.19 | 0.005208 | 4.50 | $5.2\times10^{-3}$ | |
| SH06 | 4690642 | 527547 | | 2014.6.19 | 0.003472 | 3.27 | $3.8\times10^{-3}$ | |
| SH07 | 4688209 | 527746 | [illegible] | 2014.6.20 | 0.000617284 | 0.53 | $6.1\times10^{-4}$ | |
| SH08 | 4688410 | 527550 | | 2014.6.20 | 0.000544662 | 0.47 | $5.4\times10^{-4}$ | |
| SH09 | 4688799 | 527577 | | 2014.6.21 | 0.000737 | 0.64 | $7.4\times10^{-4}$ | |

## 7.2.3.2 [illegible]

[illegible],[illegible],[illegible],[illegible], [illegible], [illegible], [illegible], [illegible]([illegible] 7-2-8)[illegible], [illegible]([illegible] 7-2-9), [illegible]

**□ 7-2-8** □□□□□□□□□□□□

| □□□□□□□□□<br>□□ | □□□ (1 □) | □□□ (3 □) | □□□ (5 □) |
|---|---|---|---|
| □(mg/L) | □□□(<0.0001) | □□□(<0.0001) | □□□(<0.0001) |
| □(mg/L) | □□□(<0.0001) | □□□(<0.0001) | □□□(<0.0001) |
| □(mg/L) | 0.0100 | 0.0097 | 0.0086 |
| □(mg/L) | □□□(<0.01) | □□□(<0.01) | □□□(<0.01) |
| □(mg/L) | 0.004 | □□□(<0.001) | □□□(<0.001) |
| □□□(mg/L) | □□□(<0.01) | □□□(<0.01) | □□□(<0.01) |
| □(mg/L) | 0.116 | □□□(<0.006) | 0.129 |
| □(mg/L) | □□□(<0.01) | □□□(<0.01) | □□□(<0.01) |
| □□(□ N □, mg/L) | 0.886 | 1.03 | 1.11 |
| □□□(mg/L) | 0.05 | 0.05 | 0.07 |

**□ 7-2-9** □□□□□□□□□□□□□

| □□□□□□□□□□<br>□ | gdt01 | gdt02 | gdt03 | gdt04 |
|---|---|---|---|---|
| PH | 8.43 | 7.82 | 8.37 | 8.46 |
| □(mg/L) | <0.01 | <0.01 | <0.01 | <0.01 |
| □(mg/L) | □□□ | □□□ | □□□ | □□□ |
| □(mg/L) | <0.01 | <0.01 | <0.01 | <0.01 |
| □□□(mg/L) | 0.36 | 0.47 | 0.38 | 0.18 |
| □□□(mg/L) | <0.004 | <0.004 | <0.004 | <0.004 |
| □(mg/L) | 0.009 | 0.002 | 0.005 | 0.005 |
| □(mg/L) | <0.0005 | <0.0005 | <0.0005 | <0.0005 |
| □□□(mg/L) | 0.018 | <0.001 | 0.006 | 0.006 |
| □□□>(mg/L) | 35.2 | 211 | 22.7 | 5.93 |
| □□□(mg/L) | <0.05 | <0.05 | <0.05 | <0.05 |
| □□□□□(□□□□)(mg/L) | <0.002 | <0.002 | <0.002 | <0.002 |
| □□□(mg/L) | <0.005 | <0.005 | <0.005 | <0.005 |
| □□(□ N □, mg/L) | 0.332 | 0.25 | 0.288 | <0.025 |

## 7.2.4 [illegible]

### 7.2.4.1 [illegible]

[illegible] 40km [illegible], [illegible] 19km[illegible] 48.5 $hm^2$, [illegible], [illegible] 550m, [illegible] 790.93m[illegible]

[illegible], [illegible]([illegible]), [illegible], [illegible] +538m~+548m [illegible], [illegible] 4%[illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

[illegible] B [illegible], [illegible], [illegible]([illegible])[illegible]([illegible] 7.2-10)[illegible]

### 7.2.4.2 [illegible]

[illegible], [illegible]($Q_3{}^{pl}$)[illegible] ($N_1t$)[illegible]($J_2t$)[illegible] ($J_2x$)[illegible]

(1)[illegible] ($Q_3{}^{pl}$): [illegible], [illegible] ($Q_3{}^{pl}$)[illegible] 1.30~7.40m, [illegible]~[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible] 30 [illegible]~50 [illegible]([illegible]) [illegible] 20%[illegible], [illegible] 2~20mm, [illegible] 40mm, [illegible]

(2)[illegible] ($N_1t$)

[illegible], [illegible], [illegible], [illegible] 0~118.69m, [illegible]([illegible] 5-1)[illegible]

[illegible]:[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible] 15mm, [illegible]

[illegible]: [illegible], [illegible], [illegible], [illegible], [illegible] [illegible]: [illegible]

[illegible],[illegible]

[illegible]: [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible] 2~6mm,[illegible]

(3)[illegible]($J_2t$)

[illegible],[illegible],[illegible],[illegible], 0~55.41m[illegible]

(4)[illegible] ($J_2x$)

[illegible], [illegible], [illegible]: [illegible], [illegible]; [illegible], [illegible], [illegible], [illegible], [illegible]

### **7.2.4.3 [illegible]**

[illegible]

**1[illegible] ([illegible]) [illegible]**

(1)[illegible] ($Q_3^{pl}$)[illegible]

[illegible], [illegible] ($Q_3^{pl}$)[illegible] 1.30~7.40m,[illegible]~[illegible], [illegible], [illegible], [illegible], [illegible], [illegible] 35m [illegible],[illegible]

(2)[illegible] ($N_1t$)[illegible]

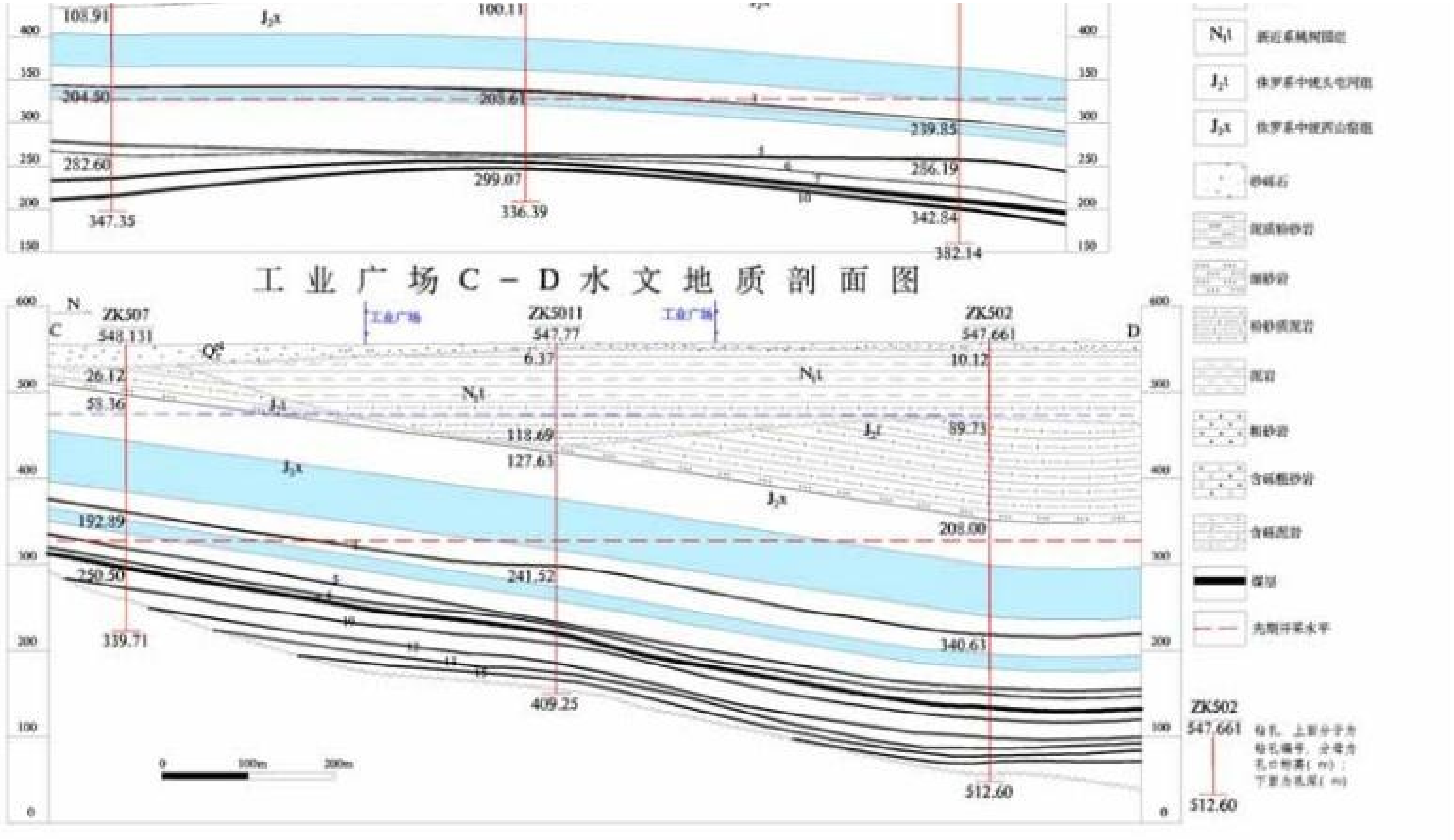
[illegible], [illegible], [illegible] 0~118.69m, [illegible], [illegible],[illegible]

(3)[illegible]($J_2t$)[illegible]

[illegible],[illegible]+473.40m [illegible],[illegible] 72.6m,[illegible] $27m^3/h$,[illegible]

(4)[illegible]($J_2x$)[illegible]

[illegible],[illegible]+371.62m [illegible],[illegible] 174.38m,[illegible] 8$m^3$/h,[illegible] ([illegible] 7.2-11)[illegible]


108.91
100.11
J2x
204.50
203.61
239.85
282.60
299.07
256.19
347.35
336.39
342.84
382.14
工业广场C－D水文地质剖面图
C
N
ZK507
548.131
工业广场
ZK5011
547.77
工业广场
ZK502
547.661
D
Q4
6.37
10.12
26.12
N1t
58.36
J2t
118.69
127.63
J2t
89.73
J2x
J2x
192.89
208.00
250.50
241.52
339.71
340.63
409.25
512.60
0
100m
200m
N1t 新近系桃树园组
J2t 侏罗系中统头屯河组
J2x 侏罗系中统西山窑组
砂砾石
泥质粉砂岩
细砂岩
粉砂质泥岩
泥岩
粗砂岩
含砾粗砂岩
含砾泥岩
煤层
先期开采水平
ZK502
547.661
512.60
钻孔 上部分子为钻孔编号，分母为孔口标高(m)；下部为孔深(m)

**[illegible] 7.2-11 [illegible]**

**2□□□□□□□□**

□□□□□□□:□□□□□□□□□□□□□□□□□□□□□□□□72.6m □□□□□□□□□,□□□□,□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

□□□□□□□□□:□□□□□□□□□□□□□□□□□□□□□□□□,□□□□□□□□□□□□□□□□□,□□□□□□□□□□□□□□□□□□□, □□□□□□□□□□□□□□ 1.3~7.4m, □□□□□ $3.2\times10^{-3}$ ~ $4.9\times10^{-3}$cm/s□

□□□□□□□□□□□□□□□□□□□□□□□□□□,□□□□□□□□□□□□□ $1.7\times10^{-7}$cm/s□

□□□□□□□□□□□□□□□□□□□□□;□□□□□□□□□□ $1.7\times10^{-7}$cm/s,□□□□□□□□

# 7.3 □□□□□□

## 7.3.1 □□□□□□□□

□□□□□ 2014 □ 5 □(□□□)□2014 □ 7 □(□□□) □□□□□□□□□□□□□□□

### 7.3.1.1 □□□□

□□□□□□□□□,□□□□□□□□□□□□□□□□,□□□□□□□□,□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ 5 □(□□□□□□□□□□□□□□□ ZDT-ZK02 □),□□□□□□□□□□□□□□ (□□□ 7.3-1□ 7-3-1)□

□ **7-3-1** □□□□□□□□□□□□□□□□□

| □□□□ | □□ | X | Y | □□□□□(m) | □□(m) | □□□□ | □□□□□ |
|---|---|---|---|---|---|---|---|
| SY-1 | □□□□ | 4688974 | 528919 | +371 | 174.3 | 2014.5.13<br>2014.7.23 | □□□ |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SY-2 | | 4689120 | 529531 | +350 | 198.1 | 2014.5.13<br>2014.7.23 | [illegible] |
| SY-3 | [illegible] | 4689208 | 528901 | +396 | 149 | 2014.5.13<br>2014.7.23 | |
| SY-4 | | 4689881 | 528845 | +360.8 | 172 | 2014.5.13<br>2014.7.23 | |
| ZDT-ZK2 | [illegible] | 4692585.303 | 520063.227 | +432.580 | 65.60 | 2012.5.17<br>2014.7.23 | |

### 7.3.1.2 [illegible]

[illegible] pH[illegible],[illegible] 26 [illegible]

### 7.3.1.3 [illegible]

[illegible] 7-3-2[illegible]

[illegible] **7-3-2** [illegible]

| [illegible] | [illegible] | [illegible] | [illegible]/[illegible] |
|---|---|---|---|
| pH | [illegible] | GB/T8538-2008 | PHS-3C [illegible] PH [illegible] |
| [illegible] | [illegible] | GB/T8538-2008 | AL104 [illegible] |
| [illegible] | [illegible] | GB/T8538-2008 | [illegible] |
| [illegible] | [illegible] | GB/T8538-2008 | 721 [illegible] |
| [illegible] | [illegible] | GB/T8538-2008 | 721 [illegible] |
| [illegible] | [illegible] | GB/T8538-2008 | 721 [illegible] |
| [illegible] | 4-[illegible] | GB/T8538-2008 | 721 [illegible] |
| [illegible] | [illegible]-[illegible] | GB/T8538-2008 | 721 [illegible] |
| [illegible] | [illegible] | GB/T8538-2008 | 721 [illegible] |
| [illegible] | [illegible] | GB/T8538-2008 | [illegible] |
| [illegible] | [illegible] | GB/T8538-2008 | [illegible] |
| [illegible] | [illegible] | GB/T16488-1996 | [illegible] |
| [illegible] | [illegible] | GB/T8538-2008 | AFS-830 [illegible] |
| [illegible] | [illegible] | GB/T8538-2008 | AFS-830 [illegible] |

| | | | |
|---|---|---|---|
| [illegible] | [illegible] | GB/T8538-2008 | GGX-9A [illegible] |
| [illegible] | [illegible] | GB/T8538-2008 | 721 [illegible] |

| [illegible] | [illegible] | [illegible] | [illegible]/[illegible] |
|---|---|---|---|
| [illegible] | [illegible] | GB/T8538-2008 | 721 [illegible] |
| [illegible] | [illegible] | GB/T8538-2008 | GGX-9A [illegible] |
| [illegible] | [illegible] | GB/T8538-2008 | GGX-9A [illegible] |
| [illegible] | [illegible] | GB/T5750.6-2006 | ICAP6300 |
| [illegible] | [illegible] | GB/T8538-2008 | GGX-9A [illegible] |
| [illegible] | [illegible] | GB/T8538-2008 | GGX-9A [illegible] |
| [illegible] | [illegible] | GB/T5750.6-2006 | ICAP6300 |

## 7.3.2 [illegible]

### 7.3.2.1 [illegible]

[illegible] (GB/14848 _93) [illegible] ([illegible]) [illegible] (GB/T14848-93) Ⅲ [illegible]([illegible] 7-3-3)

**[illegible] 7-3-3** [illegible] **([illegible])** [illegible]**: mg/L(pH [illegible])**

| [illegible] | [illegible] | Ⅰ[illegible] | [illegible] | Ⅲ[illegible] | Ⅳ[illegible] | Ⅴ[illegible] |
|---|---|---|---|---|---|---|
| 1 | pH | 6.5~>8.5 | | | 5.5~>6.5<br>8.5~>9 | <5.5，>9 |
| 2 | [illegible] | ≤300 | ≤500 | ≤1000 | ≤2000 | >2000 |
| 3 | [illegible] | ≤50 | ≤150 | ≤250 | ≤350 | >350 |
| 4 | [illegible] | ≤50 | ≤150 | ≤250 | ≤350 | >350 |
| 5 | [illegible] | ≤0.1 | ≤0.2 | ≤0.3 | ≤1.5 | >1.5 |
| 6 | [illegible] | ≤0.05 | ≤0.05 | ≤0.1 | ≤1.0 | >1.0 |
| 7 | [illegible] | ≤0.01 | ≤0.05 | ≤1.0 | ≤1.5 | >1.5 |
| 8 | [illegible] | ≤0.05 | ≤0.5 | ≤1.0 | ≤5.0 | >5.0 |
| 9 | [illegible] | ≤0.001 | ≤0.01 | ≤0.1 | ≤0.5 | >0.5 |
| 10 | [illegible] | ≤0.005 | ≤0.05 | ≤0.05 | ≤1.0 | >1.0 |
| 11 | [illegible] | ≤1.0 | ≤2.0 | ≤3.0 | ≤10 | >10 |

| □□□□ | □ □ □□□□ □ | Ⅰ□ | □□ | Ⅲ□ | Ⅳ□ | Ⅴ□ |
|---|---|---|---|---|---|---|
| 12 | □□□(□N□) | ≤2.0 | ≤5.0 | ≤20 | ≤30 | >30 |
| 13 | □□□□(□N□) | ≤0.001 | ≤0.01 | ≤0.02 | ≤0.1 | >0.1 |
| 14 | □□□ | ≤1.0 | ≤1.0 | ≤1.0 | ≤2.0 | >2.0 |
| 15 | □□□ | ≤0.1 | ≤0.1 | ≤0.2 | ≤1.0 | >1.0 |
| 16 | □ | ≤0.00005 | ≤0.00005 | ≤0.001 | ≤0.001 | >0.001 |
| 17 | □ | ≤0.005 | ≤0.01 | ≤0.05 | ≤0.05 | >0.05 |
| 18 | □ | ≤0.01 | ≤0.01 | ≤0.01 | ≤0.1 | >0.1 |
| 19 | □ | ≤0.0001 | ≤0.001 | ≤0.01 | ≤0.01 | >0.01 |
| 20 | □(□□) | ≤0.005 | ≤0.01 | ≤0.05 | ≤0.1 | >0.1 |
| 21 | □ | ≤0.005 | ≤0.01 | ≤0.05 | ≤0.1 | >0.1 |
| 22 | □ | ≤0.005 | ≤0.01 | ≤0.02 | ≤0.1 | >0.1 |
| 23 | □□(□N□) | ≤0.05 | ≤0.05 | ≤0.5 | ≤1 | >1 |
| 24 | □□□ | ≤0.001 | ≤0.01 | ≤0.05 | ≤0.1 | >0.1 |
| 25 | □□□□□(□□□□) | ≤0.001 | ≤0.001 | ≤0.002 | ≤0.01 | >0.01 |
| 26 | □□□ | ≤0.02 | ≤0.02 | ≤0.02 | ≤0.2 | >0.2 |

### 7.3.2.2 □□□□

□□□□□□□□□□□□□ _□□□□□□(HJ 610 _2011) □□□□□□□□□□□, □□□□□□□□□□□□, □□□□>1, □□□□□□□□□□□□□□□□□□□□□,□□□□□,□□□□□□□□□□□□□□□□□□□□□□□,□□□□□□□□□□□:

$$P_i = \frac{C_j}{C_{Si}}$$

□□:

Pi—□ i □□□□□□□□□□□,□□□;

Ci—□ i □□□□□□□□□□□□, mg/L;

Csi—□ i □□□□□□□□□□□□, mg/L;

□□□□□□□□□□□□□□□□□(□ pH □),□□□□□□□□□

$$P_{PH} = \frac{pH - 7.0}{pH_{su} - 7.0} \quad PH > 7.0$$

$$P_{PH} = \frac{7.0 - pH}{7.0 - pH_{sd}} \quad PH \le 7.0$$

[illegible]:

$P_{pH}$ [illegible] j [illegible] pH [illegible],[illegible];

PH [illegible] pH [illegible];

$pH_{su}$ [illegible] pH [illegible];

$pH_{sd}$ [illegible] pH [illegible]

### 7.3.2.3 [illegible]

[illegible]([illegible] 7-3-4[illegible] 7-3-5)[illegible],[illegible],[illegible]:

(1) [illegible], [illegible] 9596.41—12188.8mg/L, [illegible] ZDT-ZK2([illegible])[illegible] 12188.8mg/L,[illegible] 12.19 [illegible];[illegible] 894—1660.56mg/L,[illegible] ZDT-ZK2([illegible])[illegible] 1660.56mg/L, [illegible] 6.64 [illegible]; [illegible] 4693.89—6226.28mg/L, [illegible] ZDT-ZK2([illegible])[illegible] 6226.28mg/L, [illegible] 24.91 [illegible];[illegible] 3.42—14.7mg/L,[illegible] SY-4([illegible])[illegible] 14.7mg/L,[illegible] 4.9 [illegible];[illegible] 0.052—1.11mg/L,[illegible] SY-3([illegible])[illegible] 1. 11mg/L,[illegible] 55.5 [illegible]; [illegible]

(2) [illegible], [illegible], [illegible],[illegible],[illegible],[illegible],[illegible]

**[illegible] 7-3-4 [illegible]**

| [illegible] Mg/L | [illegible] Mg/L | SY-1 (2014 [illegible]) | | | | SY-2 (2014 [illegible]) | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | [illegible](7.23) | | [illegible](5.13) | | [illegible](7.23) | | [illegible](5.13) | |
| | | [illegible] | Pi | [illegible] | Pi | [illegible] | Pi | [illegible] | Pi |
| pH | 6.5~8.5 | 8.47 | 0.98 | 7.96 | 0.64 | 8.31 | 0.87 | 7.93 | 0.62 |
| TDS | ≤1000 | 11400 | 11.4 | 9596.41 | 9.60 | 11100 | 11.1 | 9833.45 | 9.83 |
| [illegible] | ≤250 | 952 | 3.81 | 1151.06 | 4.60 | 1080 | 4.32 | 1175.15 | 4.70 |
| [illegible] | ≤250 | 4990 | 19.96 | 4693.89 | 18.78 | 5180 | 20.72 | 4809.24 | 19.24 |
| [illegible] | ≤0.3 | 0.866 | 2.89 | 0.08 | 0.27 | 0.633 | 2.11 | 0.07 | 0.23 |
| [illegible] | ≤0.1 | [illegible] | 0 | 0.106 | 1.06 | [illegible] | 0 | 0.106 | 1.06 |
| [illegible] | ≤1.0 | [illegible] | 0 | <0.05 | [illegible] 0 | | 0 | <0.05 | 0 |
| [illegible] | ≤1.0 | [illegible] | 0 | <0.05 | [illegible] 0 | | 0 | <0.05 | 0 |
| [illegible] | ≤0.1 | [illegible] | 0 | 0.0028 | [illegible] 0.03 | | 0 | 0.0027 | 0.03 |
| [illegible] | ≤0.05 | [illegible] | 0 | <0.05 | [illegible] 0 | | 0 | <0.05 | 0 |
| [illegible] | ≤3.0 | [illegible] 3.84 | 1.28 | 14.22 | 4.74 | [illegible] 3.42 | 1.14 | 12.94 | 4.31 |
| [illegible] | ≤20 | 1.39 | 0.07 | 6.40 | 0.32 | 0.31 | 0.02 | 7.56 | 0.38 |
| [illegible] | ≤0.02 | 0.159 | 7.95 | 1.02 | 51.00 | 0.058 | 2.9 | 1.04 | 52.00 |
| [illegible] | ≤1.0 | 0.24 | 0.24 | 0.77 | 0.77 | 0.25 | 0.25 | 0.71 | 0.71 |
| [illegible] | ≤0.2 | 0.81 | 4.05 | 0.446 | 2.23 | 0.82 | 4.1 | 0.438 | 2.19 |
| [illegible] | ≤0.001 | [illegible] | 0 | <0.001 | 0 [illegible] | [illegible] | 0 | <0.001 | 0 |
| [illegible] | ≤0.05 [illegible] | 0.0072 | 0.14 | <0.01 | 0 | 0.0078 | 0.16 | <0.01 | 0 |
| [illegible] | ≤0.01 | 0.0012 | 0.12 | <0.01 | 0 | 0.0008 | 0.08 | <0.01 | 0 |
| [illegible] | ≤0.01 | [illegible] | 0 | <0.005 | 0 | [illegible] | 0 | <0.005 | 0 |
| [illegible]([illegible]>) | ≤0.05 | [illegible] | 0 | <0.05 | [illegible] 0 | | 0 | <0.05 | 0 |
| | ≤0.05 | [illegible] | 0 | <0.01 | [illegible] 0 | | 0 | <0.01 | 0 |
| [illegible] [illegible] | ≤0.02 | [illegible] | 0 | <0.02 | [illegible] 0 | | 0 | <0.02 | 0 |
| [illegible] | ≤0.05 | [illegible] | 0 | <0.00003 | [illegible] 0 | | 0 | <0.00003 | 0 |
| [illegible] | ≤0.5 | [illegible] | 0 | 1.42 | [illegible] 2.84 | | 0 | 2.88 | 5.76 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| [illegible] | [illegible]<br>≤0.05 | | 0 | <0.05 | 0 [illegible] | | 0 | <0.05 | 0 |
| [illegible] | [illegible]<br>≤0.002 | | 0 | <0.002 | 0 [illegible] | | 0 | <0.002 | 0 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| □□□ | ≤0.02 | □□□ | 0 | / | / | □□□ | 0 | / | / |

□□ **7-3-4** □□□□□□□□□□□

| □□□□ Mg/L | □□□ Mg/L | SY-3 (2014 □) | | | | SY-4 (2014 □) | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | □□□(7.23) | | □□□(5.13) | | □□□(7.23) | | □□□(5.13) | |
| | | □□ | Pi | □□ | Pi | □□ | Pi | □□ | Pi |
| pH | 6.5~8.5 | 7.94 | 0.63 | 7.84 | 0.56 | 7.80 | 0.53 | 7.8 | 0.53 |
| TDS | ≤1000 | 11700 | 11.70 | 10018.7 | 10.0 | 11600 | 11.6 | 10042.7 | 10.04 |
| □□□ | ≤250 | 1020 | 4.08 | 1231.72 | 4.93 | 894 | 3.58 | 1226.91 | 4.91 |
| □□□ | ≤250 | 5860 | 23.44 | 4880.22 | 19.5 | 5570 | 22.3 | 4897.97 | 19.59 |
| □ | ≤0.3 | □□□ | 0 | 0.07 | 0.23 | □□□ | 0 | 0.07 | 0.23 |
| □ | ≤0.1 | 0.347 | 3.47 | 0.11 | 1.10 | 0.313 | 3.13 | 0.113 | 1.13 |
| □ | ≤1.0 | □□□ | 0 | <0.05 | 0 | □□□ | 0 | <0.05 | 0 |
| □ | ≤1.0 | □□□ | 0 | <0.05 | 0 | □□□ | 0 | <0.05 | 0 |
| □ | ≤0.1 | □□□ | 0 | 0.00234 | 0.02 | □□□ | 0 | 0.00229 | 0.02 |
| □ | ≤0.05 | □□□ | 0 | <0.05 | 0 | □□□ | 0 | <0.05 | 0 |
| □□□□□□ | ≤3.0 | 4 | 1.33 | 14.06 | 4.69 | 4.41 | 1.47 | 14.70 | 4.90 |
| □□□ | ≤20 | 0.35 | 0.02 | 6.92 | 0.35 | 0.43 | 0.02 | 7.74 | 0.39 |
| □□□□ | ≤0.02 | 0.064 | 3.20 | 1.11 | 55.5 | 0.052 | 2.60 | 1.10 | 55.00 |
| □□□ | ≤1.0 | 0.34 | 0.34 | 0.74 | 0.74 | 0.34 | 0.34 | 0.74 | 0.74 |
| □□□ | ≤0.2 | 0.83 | 4.15 | 0.458 | 2.29 | 0.81 | 4.05 | 0.482 | 2.41 |
| □ | ≤0.001 | □□□ | 0 | <0.001 | 0 | □□□ | 0 | <0.001 | 0 |
| □ | ≤0.05 | □□□ | 0 | <0.01 | 0 | □□□ | 0 | <0.01 | 0 |
| □ | ≤0.01 | □□□ | 0 | <0.01 | 0 | □□□ | 0 | <0.01 | 0 |
| □ | ≤0.01 | □□□ | 0 | <0.005 | 0 | □□□ | 0 | <0.005 | 0 |
| □(□ | ≤0.05 | □□□ | 0 | <0.05 | 0 | □□□ | 0 | <0.05 | 0 |
| | ≤0.05 | □□□ | 0 | <0.01 | 0 | □□□ | 0 | <0.01 | 0 |
| □ | ≤0.02 | □□□ | 0 | <0.02 | 0 | □□□ | 0 | <0.02 | 0 |
| □ | ≤0.05 | □□□ | 0 | <0.00003 | 0 | □□□ | 0 | <0.00003 | 0 |
| □□ | ≤0.5 | □□□ | 0 | 1.74 | 3.48 | □□□ | 0 | 1.50 | 3.00 |
| □□□ | ≤0.05 | □□□ | 0 | <0.05 | 0 | □□□ | 0 | <0.05 | 0 |

□>)
□

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| □□□□ | ≤0.002 | □□□ | 0 | <0.002 | 0 | □□□ | 0 | <0.002 | 0 |
| □□□ | ≤0.02 | □□□ | 0 | / | / | □□□ | 0 | / | / |

□□ **7-3-4** □□□□□□□□□□

| □□□□ Mg／L | □□□ Mg／L | □□□□□□□□□□□□□□□□□□□□□□ ZK2 □ | | | |
|---|---|---|---|---|---|
| | | □□□ (2012.5.17) | | ZDT-ZK2 □□□ (2014.7.23) | |
| | | □□ | Pi | □□ | Pi |
| pH | 6.5~8.5 | 7.56 | 0.37 | 7.75 | 0.5 |
| TDS | ≤1000 | 12055.49 | 12.06 | 12188.8 | 12.19 |
| □□□ | ≤250 | 1339.9 | 5.36 | 1660.56 | 6.64 |
| □□□ | ≤250 | 6207.79 | 24.83 | 6226.28 | 24.91 |
| □ | ≤0.3 | / | / | 0.04 | 0.13 |
| □ | ≤0.1 | / | / | <0.1 | 0 |
| □ | ≤1.0 | <0.05 | 0 | <0.05 | 0 |
| □ | ≤1.0 | <0.05 | 0 | <0.05 | 0 |
| □ | ≤0.1 | / | / | 0.00255 | 0.03 |
| □ | ≤0.05 | / | / | <0.05 | 0 |
| □□□□□□ | ≤3.0 | 10.62 | 3.54 | 13.90 | 4.63 |
| □□□ | ≤20 | 8.37 | 0.42 | 8.33 | 0.42 |
| □□□□ | ≤0.02 | 0.42 | 21.00 | 0.70 | 35.00 |
| □□□ | ≤1.0 | 0.99 | 0.99 | 0.62 | 0.62 |
| □□□ | ≤0.2 | / | / | 0.291 | 1.46 |
| □ | ≤0.001 | 0.000217 | 0.22 | <0.001 | 0 |
| □ | ≤0.05 | 0.000796 | 0.02 | <0.01 | 0 |
| □ | ≤0.01 | / | / | <0.01 | 0 |
| □ | ≤0.01 | <0.003 | 0 | <0.005 | 0 |
| □(□□>) | ≤0.05 | <0.01 | 0 | <0.05 | 0 |
| □ | ≤0.05 | <0.01 | 0 | <0.01 | 0 |
| □ | ≤0.02 | <0.02 | 0 | <0.02 | 0 |
| □ | ≤0.05 | / | / | <0.00003 | 0 |
| □□ | ≤0.5 | 3.60 | 7.20 | 3.68 | 7.36 |

| | | | | | |
|---|---|---|---|---|---|
| [illegible] | ≤0.05 | / | / | <0.05 | 0 |
| [illegible] | ≤0.002 | 0.0012 | 0.60 | <0.002 | 0 |
| [illegible] | ≤0.02 | / | / | / | / |

[illegible] **7-3-5** [illegible]

| [illegible] | [illegible] mg/L | [illegible] | [illegible] (mg/L) | [illegible] (mg/L) | [illegible] |
|---|---|---|---|---|---|
| pH | 6.5~8.5 | 10(5 [illegible]×2 [illegible]) | 7.56 | 8.47 | — |
| TDS | ≤1000 | 10 | 9596.41 | 12188.8 | 12.19 |
| [illegible] | ≤250 | 10 | 894 | 1660.56 | 6.64 |
| [illegible] | ≤250 | 10 | 4693.89 | 6226.28 | 24.91 |
| [illegible] | ≤0.3 | 10 | 0 | 0.866 | 2.89 |
| [illegible] | ≤0.1 | 10 | 0 | 0.347 | 3.47 |
| [illegible] | ≤1.0 | 10 | 0 | 0 | — |
| [illegible] | ≤1.0 | 10 | 0 | 0 | — |
| [illegible] | ≤0.1 | 10 | 0 | 0.0028 | — |
| [illegible] | ≤0.05 | 10 | 0 | 0 | — |
| [illegible] | ≤3.0 | 10 | 3.42 | 14.7 | 4.9 |
| [illegible] | ≤20 | 10 | 0.31 | 8.37 | — |
| [illegible] | ≤0.02 | 10 | 0.052 | 1.11 | 55.5 |
| [illegible] | ≤1.0 | 10 | 0.24 | 0.99 | — |
| [illegible] | ≤0.2 | 10 | 0.291 | 0.83 | 4.15 |
| [illegible] | ≤0.001 | 10 | 0 | 0.000217 | — |
| [illegible] | ≤0.05 | 10 | 0 | 0.0078 | — |
| [illegible] | ≤0.01 | 10 | 0 | 0.0012 | — |
| [illegible] | ≤0.01 | 10 | 0 | 0 | — |
| [illegible]([illegible]) | ≤0.05 | 10 | 0 | 0 | — |
| [illegible] | ≤0.05 | 10 | 0 | 0 | — |
| [illegible] | ≤0.02 | 10 | 0 | 0 | — |
| [illegible] | ≤0.05 | 10 | 0 | 0 | — |
| [illegible] | ≤0.5 | 10 | 0 | 3.68 | 7.36 |
| [illegible] | ≤0.05 | 10 | 0 | 0 | — |
| [illegible] | ≤0.002 | 10 | 0 | 0.0012 | — |
| [illegible] | ≤0.02 | 10 | 0 | 0 | — |

# 7.4.1 [illegible]

## 7.4.1.1 [illegible]

[illegible]

[illegible]([illegible]),[illegible], [illegible]; [illegible], [illegible]

[illegible], [illegible]

## 7.4.1.2 [illegible]

(1) [illegible]

[illegible],[illegible] 72.6m[illegible] ($Q_3^{pl}$)[illegible],[illegible] 1.30~7.40m,[illegible],[illegible]~[illegible],[illegible],[illegible],[illegible],[illegible],[illegible] $3.2\times10^{-3}$ ~ $4.9\times10^{-3}$cm/s[illegible],[illegible] $1.7\times10^{-7}$cm/s[illegible]

[illegible] HYDRUS [illegible],[illegible],[illegible] 7.4m,[illegible] $4.9\times10^{-3}$cm/s;[illegible],[illegible] 65.2m, [illegible] $1.7\times10^{-7}$cm/s[illegible] Hydrus [illegible] 7-5-1[illegible]

[illegible] **7-5-1** [illegible]

| $\theta_r$ | $\theta_s$ | $\alpha$ (cm-1) | n | $k_s$ (cm/d) | $l$ | $\rho$ (g/cm3) | DL(cm-1) | DT(cm-1) |
|---|---|---|---|---|---|---|---|---|
| 0.045 | 0.43 | 0.145 | 2.68 | 423 | 0.5 | 1.5 | 0.5 | 0.1 |
| 0.07 | 0.36 | 0.005 | 1.09 | 0.01 | 0.5 | 1.5 | 0.5 | 0.1 |

(2)[illegible]

[illegible], [illegible],[illegible], [illegible]

(3)[illegible]

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible]

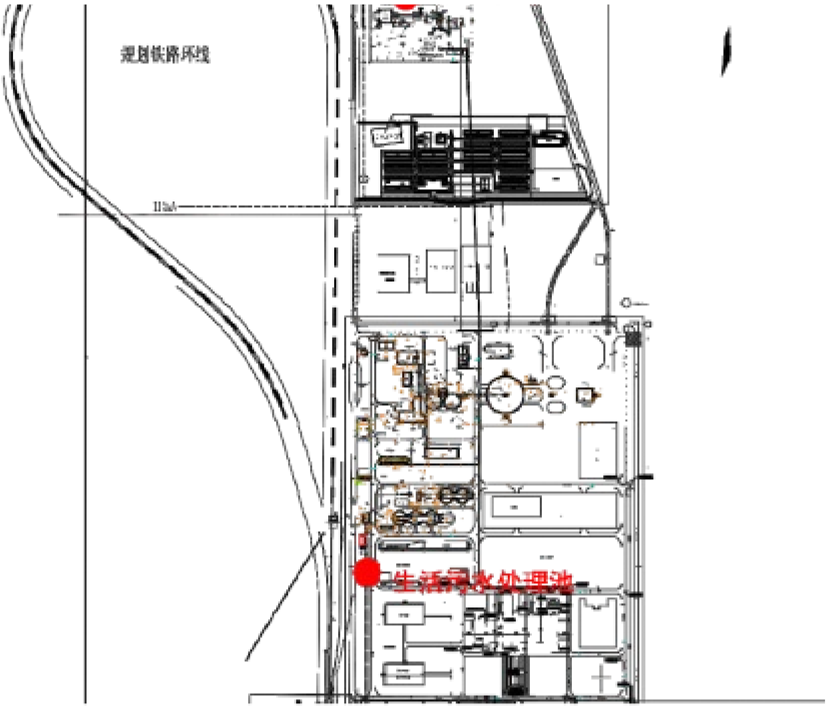
(4)[illegible]

1)[illegible]

[illegible],[illegible]:

① [illegible],[illegible];

② [illegible],[illegible];


规划铁路环线
生活污水处理池

[illegible] 7.5-7 [illegible]

2)[illegible]

[illegible], [illegible], [illegible], [illegible],[illegible]

[illegible], [illegible],[illegible]:

[illegible] 7-5-2 [illegible]

| [illegible] | [illegible] | [illegible] | [illegible] (mg/L) | [illegible] |
|---|---|---|---|---|
| [illegible] | [illegible] | [illegible] | 87 | [illegible] |
| | | [illegible] | 0.5 | |
| | | [illegible] | 3 | |
| | [illegible] | [illegible] | 198 | |
| | | [illegible] | 16 | |
| | | [illegible] | 6 | |

[illegible], [illegible] (GB/T14848-93)Ⅲ[illegible],[illegible](GB3838-2002) Ⅲ[illegible],[illegible] [illegible] 7-5-3[illegible]

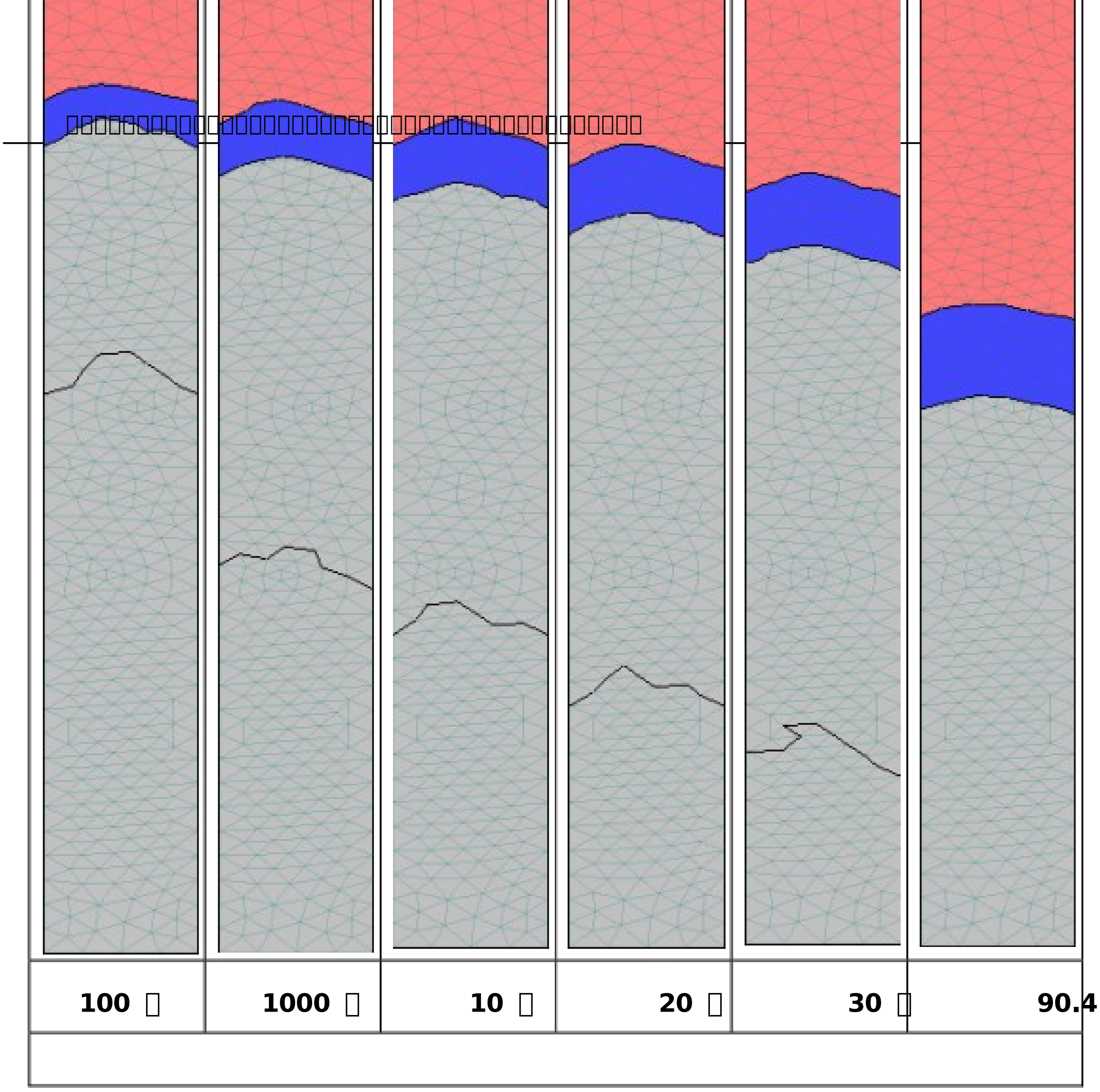
[illegible] **7-5-3** [illegible]

| [illegible] | [illegible] (mg/L) | [illegible] (mg/L) |
|---|---|---|
| [illegible] | 0.05 | 3 |
| [illegible] | 0.02 | 0.2 |
| [illegible] | 0.01 | 0.05 |

3) [illegible]

① [illegible]

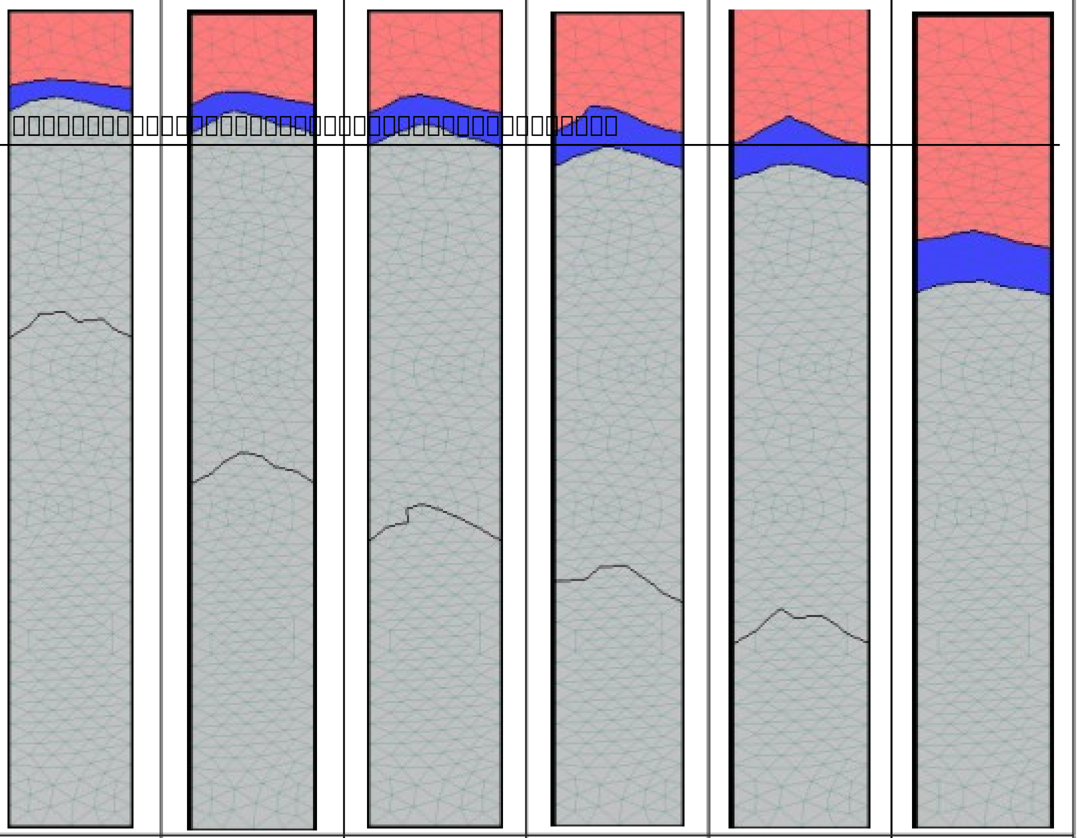
a[illegible], [illegible] 7.5-8[illegible], [illegible],[illegible] 32m , [illegible]


100 □
1000 □
10 □
20 □
30 □
90.4 □□ 7.5-8 □□□

**□ 7-5-4 □□□□□□□□□□□□□**

| □□□□ | □□□□（m） | □□□□（m） |
|---|---|---|
| 100 □ | 12 | 8 |
| 1000 □ | 14 | 10 |
| 10 □ | 16 | 12 |
| 20 □ | 18 | 14 |
| 30 □ | 20 | 15 |
| 90.4 □ | 32 | 24 |

b□□□□□□□□□□□□□□□□□□□□, □□□□□□□□□□□□□□□□□ 7.5-9◎□□□□□,□□□□□□□□□□□□□□□□,□□□□□□□ 24m， □□□□□□□□□□□□□□□□◎


100 [illegible]
1000 [illegible]
10 [illegible]
20 [illegible]
30 [illegible]
90.4 [illegible]

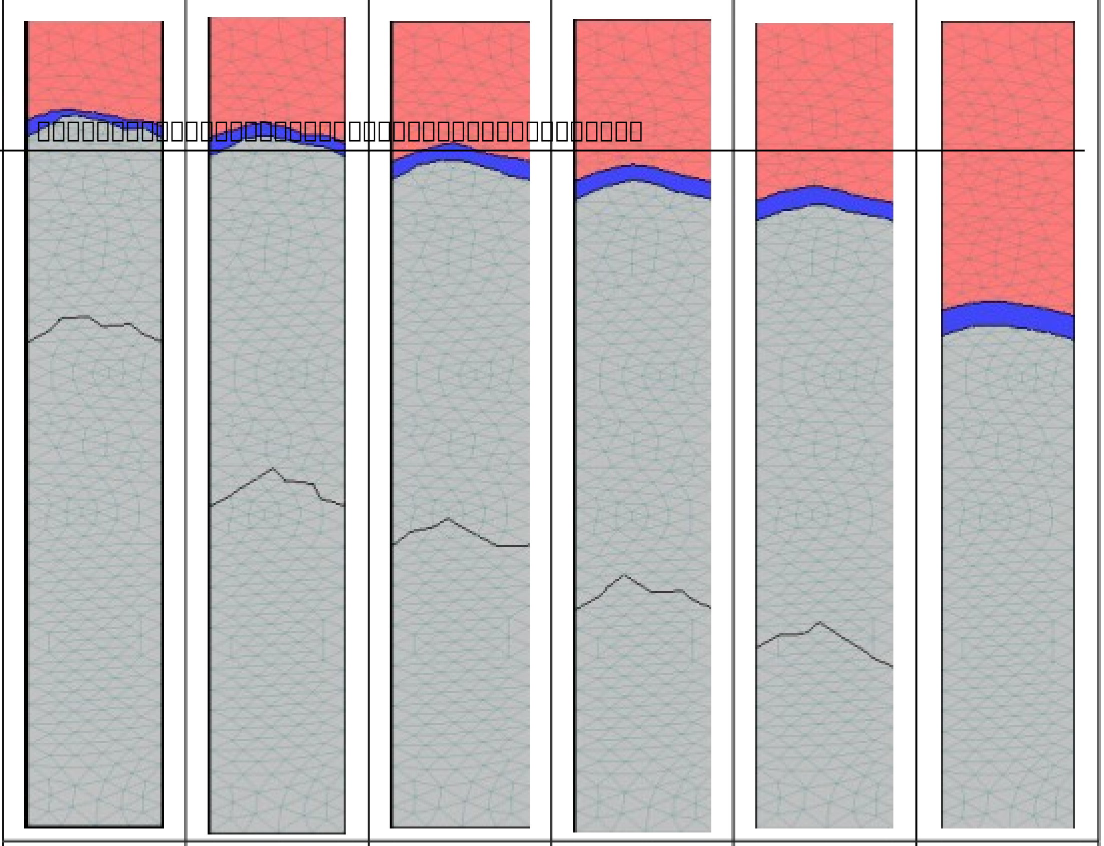
[illegible] **7.5-9** [illegible]

**[illegible] 7-5-5** [illegible]

| [illegible] | [illegible] (m) | [illegible] (m) |
|---|---|---|
| 100 [illegible] | 8 | 6 |
| 1000 [illegible] | 10 | 7 |
| 10 [illegible] | 12 | 8 |
| 20 [illegible] | 13 | 10 |
| 30 [illegible] | 15 | 12 |
| 90.4 [illegible] | 24 | 20 |

c[illegible], [illegible] 7.5-10◎[illegible],[illegible],[illegible] 28m, [illegible]◎

[illegible]



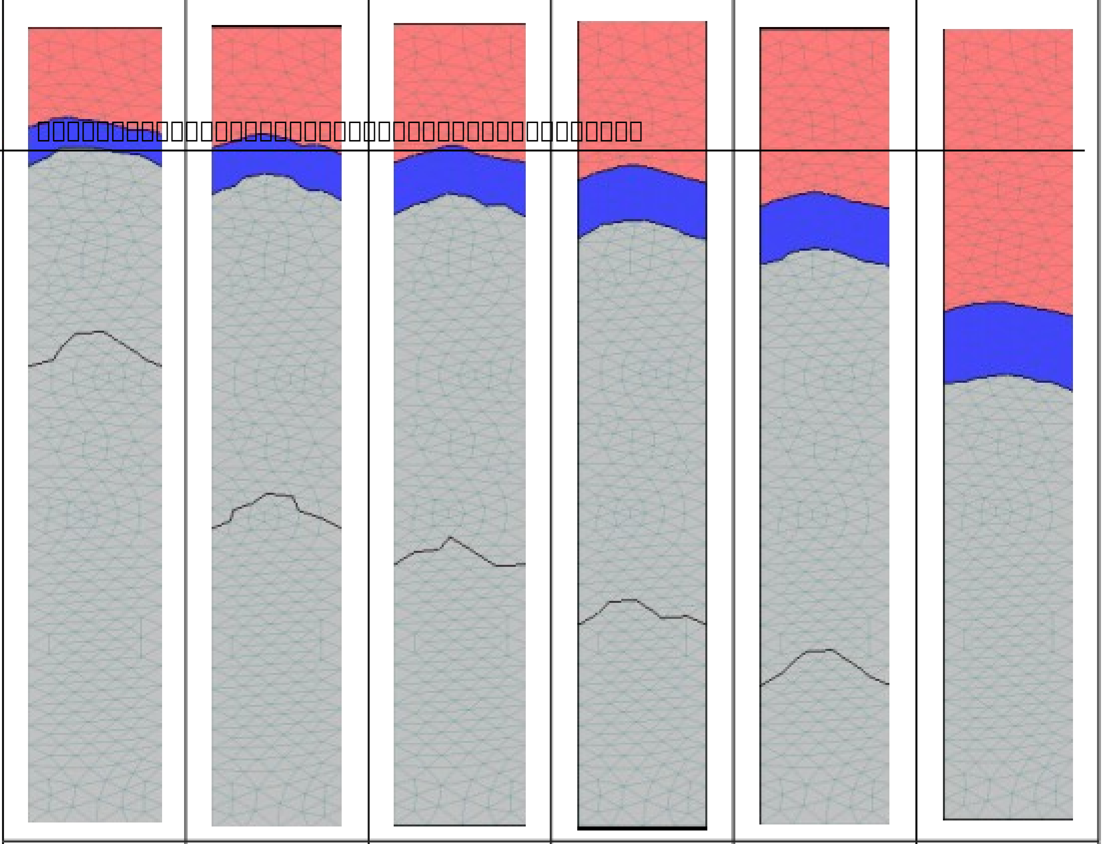
[illegible] **7.5-10** [illegible]

**[illegible] 7-5-6 [illegible]**

| [illegible] | [illegible] (m) | [illegible] (m) |
|---|---|---|
| 100 [illegible] | 10 | 8 |
| 1000 [illegible] | 12 | 10 |
| 10 [illegible] | 14 | 12 |
| 20 [illegible] | 16 | 14 |
| 30 [illegible] | 18 | 16 |
| 90.4 [illegible] | 28 | 26 |

② [illegible]

a[illegible], [illegible] 7.5-11 ◎[illegible],[illegible],[illegible] 33m,[illegible]◎

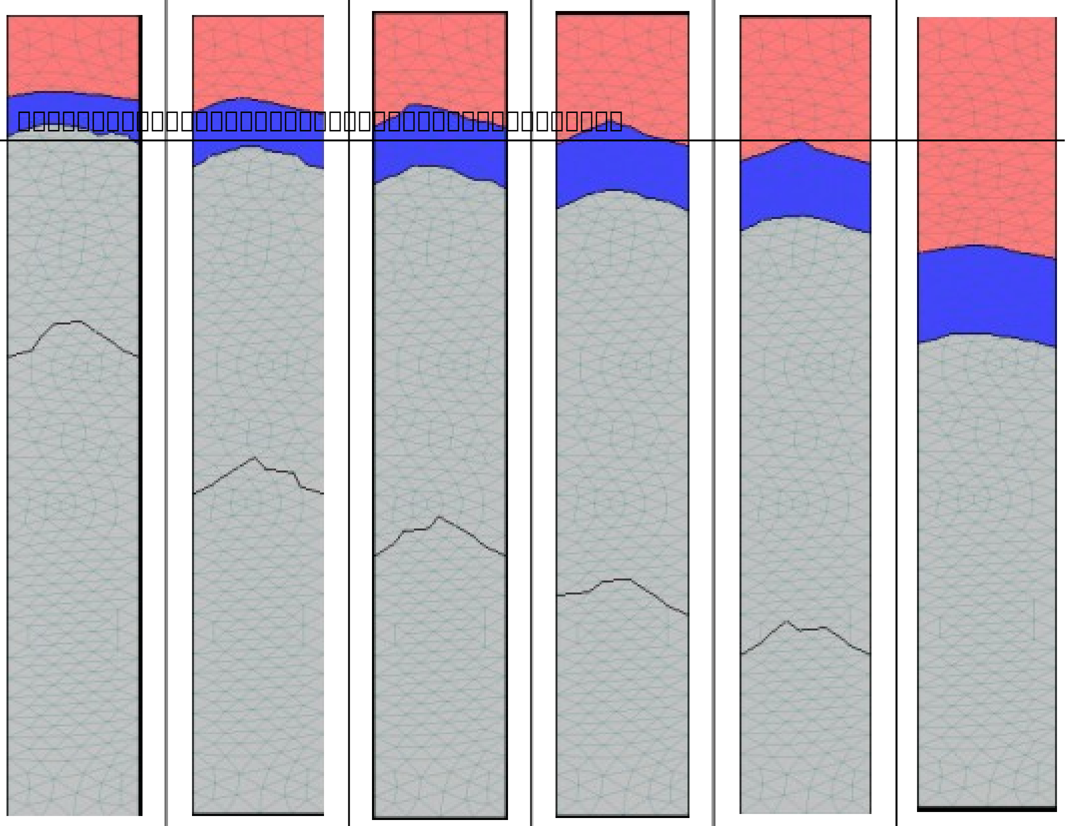

100 [illegible]
1000 [illegible]
10 [illegible]
20 [illegible]
30 [illegible]
90.4 [illegible]

**[illegible] 7.5-11 [illegible]**

**[illegible] 7-5-7 [illegible]**

| [illegible] | [illegible] (m) | [illegible] (m) |
|---|---|---|
| 100 [illegible] | 12 | 9 |
| 1000 [illegible] | 15 | 11 |
| 10 [illegible] | 17 | 12 |
| 20 [illegible] | 19 | 14 |
| 30 [illegible] | 21 | 16 |
| 90.4 [illegible] | 33 | 26 |

b[illegible],[illegible] 7-5-12◎[illegible],[illegible],[illegible] 30m, [illegible]◎



| 100 □ | 1000 □ | 10 □ | 20 □ | 30 □ | 90.4 □ |
|---|---|---|---|---|---|

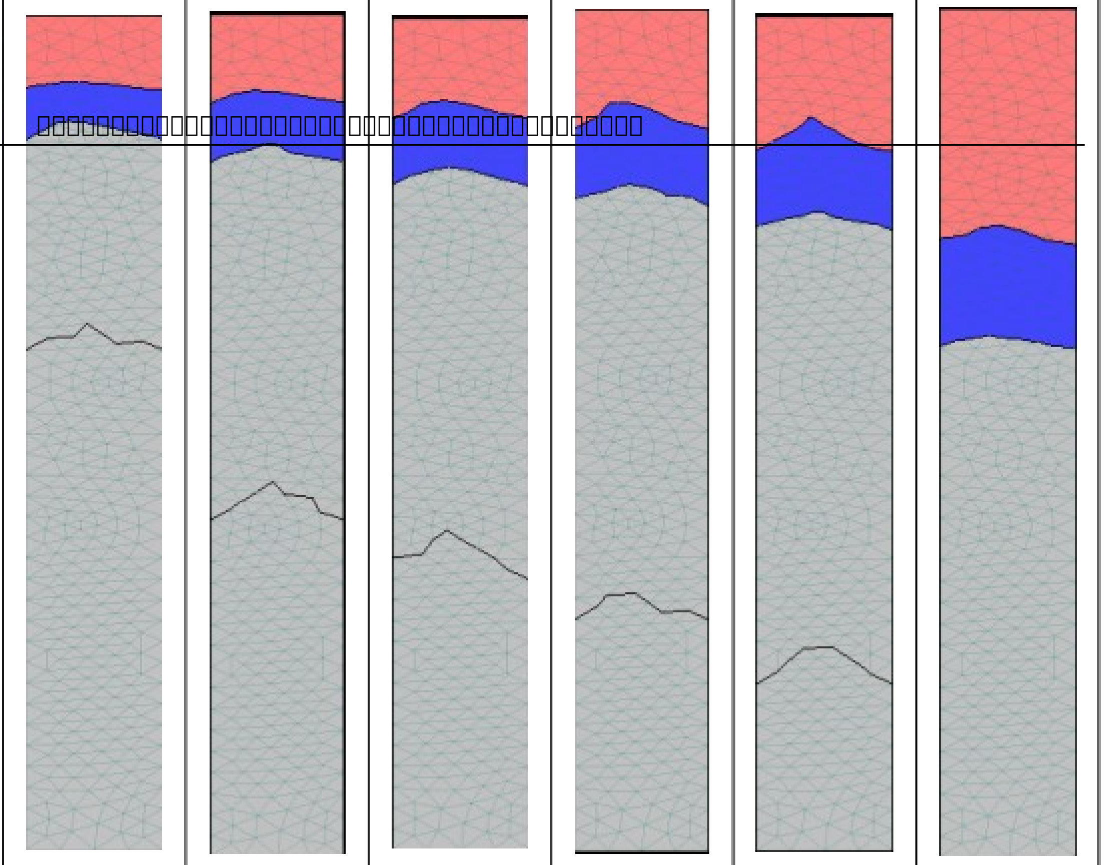
□ **7.5-12** □□□□□□□□□□□□

**□7-5-8** □□□□□□□□□□

| □□□□ | □□□□ (m) | □□□□ (m) |
|---|---|---|
| 100 □ | 11 | 7 |
| 1000 □ | 13 | 8 |
| 10 □ | 15 | 10 |
| 20 □ | 17 | 11 |
| 30 □ | 19 | 12 |
| 90.4 □ | 30 | 22 |

c □□□□□□□□□□□□□□□□□□,□□□□□□□□□□□□□□□□□ 7.5-13◎□□□□□,□□□□□□□□□□□□□□□□□,□□□□□□ 28m,□□□□□□□□□□□□□□□◎

[illegible]



100 [illegible] 1000 [illegible] 10 [illegible] 20 [illegible] 30 [illegible] 90.4 [illegible]

[illegible] 7.5-13 [illegible]

[illegible] 7-5-9 [illegible]

| [illegible] | [illegible] (m) | [illegible] (m) |
|---|---|---|
| 100 [illegible] | 10 | 6 |
| 1000 [illegible] | 12 | 7 |
| 10 [illegible] | 14 | 8 |
| 20 [illegible] | 16 | 10 |
| 30 [illegible] | 18 | 11 |
| 90.4 [illegible] | 28 | 20 |

### 7.4.2.3 [illegible]

[illegible]

[illegible], [illegible], [illegible], [illegible], [illegible]

### 7.4.2.4 [illegible]

(1)[illegible],[illegible]

(2)[illegible],[illegible]; [illegible], [illegible], [illegible] 33m, [illegible], [illegible], [illegible], [illegible], [illegible]

(3) [illegible], [illegible], [illegible], [illegible]

## 7.4 [illegible]

### 7.4.1 [illegible]

[illegible], [illegible],[illegible];[illegible],[illegible], [illegible], [illegible]; [illegible], [illegible]; [illegible]“[illegible]” [illegible], [illegible], [illegible]“[illegible]”, [illegible], [illegible], [illegible]

[illegible], [illegible]“[illegible]”[illegible], [illegible], [illegible]

[illegible]， [illegible]

## 7.4.2 [illegible]

[illegible],[illegible]/[illegible],[illegible]

### 7.4.2.1 [illegible]

[illegible]， [illegible] 6.0m [illegible] 1.0×$10^{-7}$cm/s [illegible], [illegible] 1.5m [illegible] 1.0×$10^{-7}$cm/s [illegible]

(1) [illegible]

[illegible]

(2) [illegible]

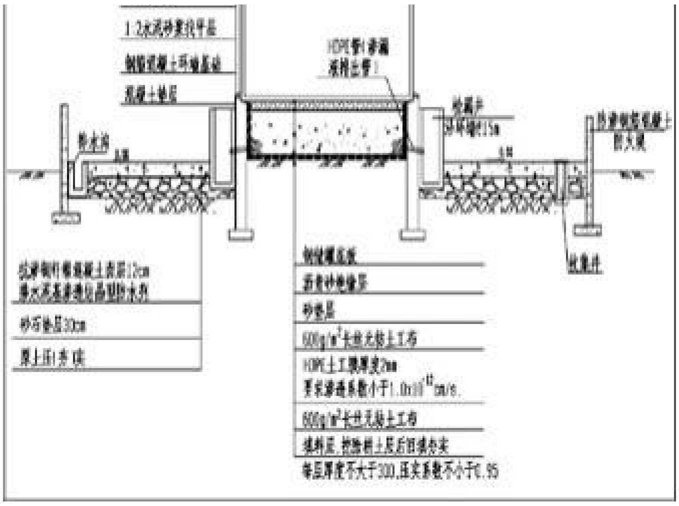
[illegible], [illegible]

### 7.4.2.2 [illegible]

[illegible]， [illegible]， [illegible]

(1) [illegible]

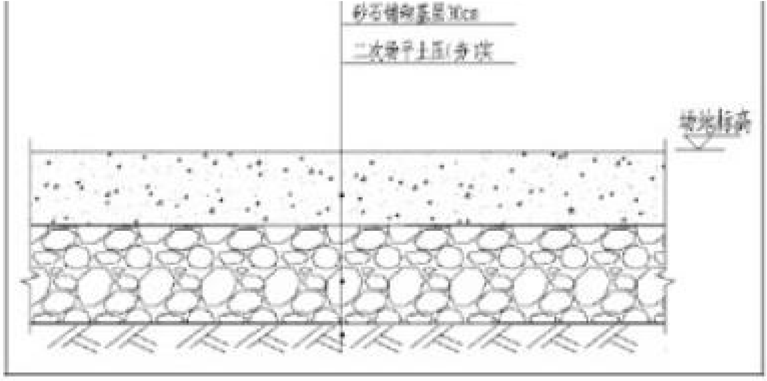
[illegible],[illegible]([illegible] 1.0×$10^{-12}$ cm/s) ([illegible] 7.6-1)[illegible]


1:3水泥砂浆找平层
钢筋混凝土环墙基础
混凝土垫层
HDPE管(渗漏液排出管)
抗渗钢纤维混凝土面层12cm
掺水泥基渗透结晶型防水剂
砂石垫层30cm
原土压(夯)实
钢储罐底板
沥青砂绝缘层
砂垫层
600g/m² 长丝无纺土工布
HDPE土工膜厚度2mm
要求渗透系数小于1.0x10⁻¹²cm/s.
600g/m² 长丝无纺土工布
填料层,挖除耕土层后回填夯实
每层厚度不大于300,压实系数不小于0.95
防渗钢筋混凝土防火堤
收集井

**[illegible] 7.6-1** [illegible]

(2) [illegible]

[illegible], [illegible]([illegible]) [illegible], [illegible], [illegible]=[illegible]=[illegible],[illegible]([illegible] 7.6-2)[illegible]


砂石铺砌垫层30cm
二次整平土压(夯)实
场地标高

**[illegible] 7.6-2** [illegible]

## 7.4.3 [illegible]

[illegible],[illegible],[illegible], [illegible], [illegible],[illegible]

[illegible], [illegible] (HJ/T164__2004), [illegible], [illegible],[illegible]

(1) [illegible]

[illegible], [illegible], [illegible] 5 [illegible] 7-6-1[illegible]

[illegible] **7-6-1** [illegible]

| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|---|---|
| SY-1 | [illegible] | [illegible] | pH[illegible]COD$_{Mn}$[illegible]<br>[illegible]<br>[illegible]<br>[illegible],[illegible]<br>[illegible] | [illegible] | [illegible] | |
| SY-2 | | | | | | |
| SY-3 | [illegible] | | | | | |
| SY-4 | | | | | | |
| ZDT-ZK 2 | [illegible] | | | | | |

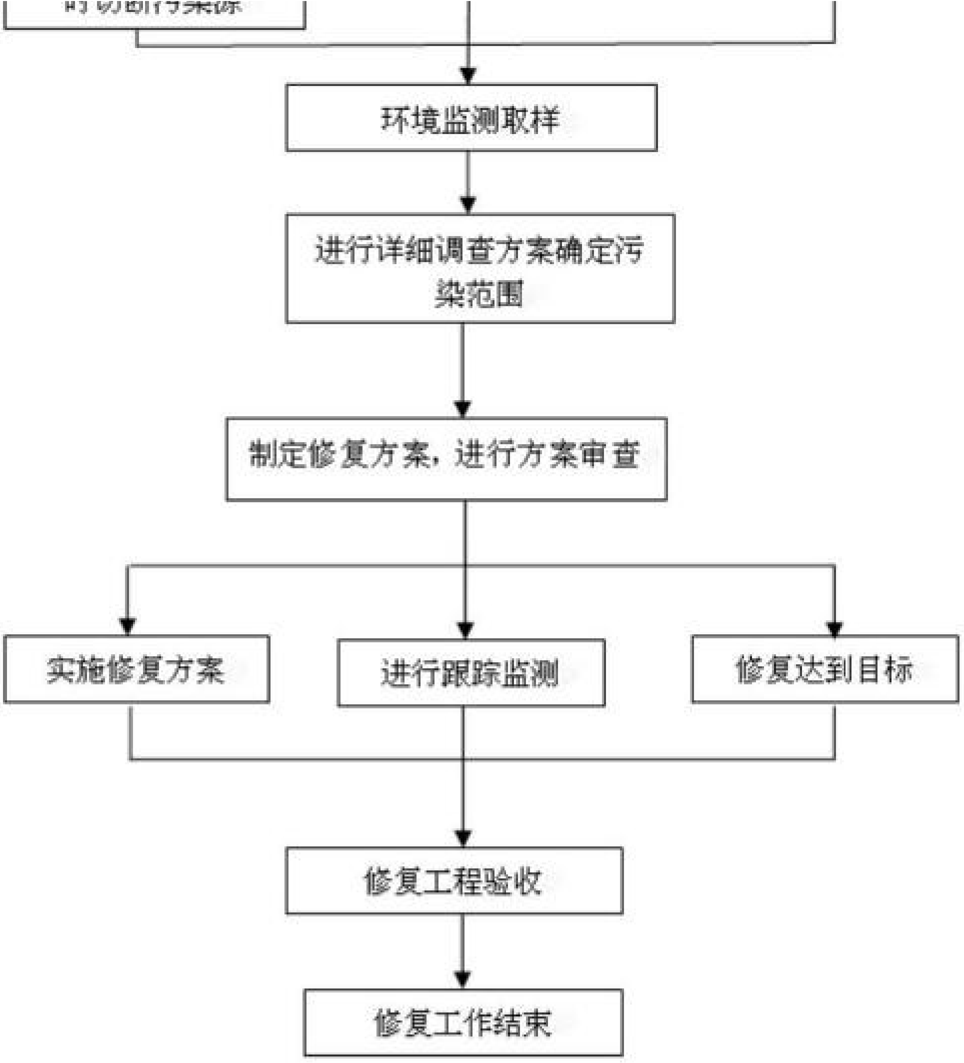
(2) [illegible]

[illegible], [illegible], [illegible], [illegible], [illegible],[illegible]

## 7.4.4 [illegible]

### 7.4.4.1 [illegible]

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible] 7-6-3[illegible]


环境监测取样
进行详细调查方案确定污染范围
制定修复方案，进行方案审查
实施修复方案
进行跟踪监测
修复达到目标
修复工程验收
修复工作结束

**[illegible] 7.6-3 [illegible]**

### 7.4.4.2 [illegible]

[illegible], [illegible], [illegible]:

(1) [illegible],[illegible],[illegible];

(2)[illegible],[illegible],[illegible];

(3)[illegible];

(4)[illegible]

### 7.4.4.3 [illegible]

① [illegible], [illegible], [illegible]

② [illegible], [illegible], [illegible],[illegible]

③ [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

## 7.5 [illegible]

### 7.5.1 [illegible]

[illegible] III [illegible] I [illegible]:[illegible], [illegible] II [illegible]:[illegible]

□□□□□□□□，□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ I □□II □□□□□□□□ □□□□□，□□□□□□□□□□□□□□□□□ III □□□□

## 7.5.2 □□□□□□□□□□

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□□□□□□□□□，□□□□□□□□□□□□，□□□□□□□□，□□□□□，□□□□□□ □□□□□□□□，□□□□□□,□□□□□□□□

## 7.5.3 □□□□□□□□□□□□

1.□□□□□□□□□□□

□□□□□□□□□□□□□□□□□□,□□□□□□□□□□□□□，□□□□□□□□□□□□□ □□□□□□□□□□□□□□□□□,□□□□□□□□□□□□□□□□□□□□□,□□□□□□

2.□□□□□□□□□□

(1)□□□□□□□□□□□□□□,□□□□□□□□□□□□□□□□□□□

(2)[illegible],[illegible]; [illegible], [illegible], [illegible] 33m, [illegible], [illegible], [illegible], [illegible], [illegible]

(3)[illegible],[illegible],[illegible], [illegible]

## 7.5.4 [illegible]

[illegible],[illegible]“[illegible]”[illegible],[illegible], [illegible]

[illegible], [illegible], [illegible] 6.0m [illegible] $1.0\times10^{-7}$cm/s [illegible], [illegible] 1.5m [illegible] $1.0\times10^{-7}$cm/s [illegible]

# 8 [illegible]

## 8.1 [illegible]

[illegible]

### 8.1.1 [illegible]

[illegible] (HJ2.2__2008) [illegible] 0°,[illegible] 0° [illegible] 90° [illegible] 180° [illegible] 270°[illegible] 1 [illegible], [illegible] 1 [illegible] 8-1-1 [illegible] 5.1-10 [illegible]

[illegible] **8-1-1** [illegible]

| [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|
| 1 | [illegible] 1000 [illegible] | E: 93°20,46.69[illegible]<br>N: 42°19,31.77[illegible] | $SO_2$[illegible]$NO_2$[illegible]TSP[illegible]$PM_{10}$[illegible]$PM_{2.5}$ |
| 2 | [illegible] 1000 [illegible] | E: 93°20,57.99[illegible]<br>N: 42°18,53.00[illegible] | $SO_2$[illegible]$NO_2$[illegible]TSP[illegible]$PM_{10}$[illegible]$PM_{2.5}$ |
| 3 | [illegible] 90°[illegible] 1000 [illegible] | E: 93°20,21.12[illegible]<br>N: 42°19,20.37[illegible] | $SO_2$[illegible]$NO_2$[illegible]TSP[illegible]$PM_{10}$[illegible]$PM_{2.5}$ |
| 4 | [illegible] 270°[illegible] 1000 [illegible] | E: 93°21,43.13[illegible]<br>N: 42°19,30.76[illegible] | $SO_2$[illegible]$NO_2$[illegible]TSP[illegible]$PM_{10}$[illegible]$PM_{2.5}$ |
| 5 | [illegible] | E: 93°0,57.99[illegible]<br>N: 42°18,53.00[illegible] | $SO_2$[illegible]$NO_2$[illegible]TSP[illegible]$PM_{10}$[illegible]$PM_{2.5}$ |
| 6 | [illegible] 2000 [illegible] | E: 93°21,22.06[illegible]<br>N: 42°17,33.46[illegible] | $SO_2$[illegible]$NO_2$[illegible]TSP[illegible]$PM_{10}$[illegible]$PM_{2.5}$ |

### 8.1.2 [illegible]

[illegible] (GB3095-2012) [illegible],[illegible] 8-1-2[illegible]

**[illegible] 8-1-2 [illegible] (GB3095-2012) [illegible] [illegible]: μg/m$^3$**

| [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|
| 1 | [illegible] ($SO_2$) | 1 [illegible] | 500 |
| | | 24 [illegible] | 150 |
| 2 | [illegible] ($NO_2$) | 1 [illegible] | 200 |
| | | 24 [illegible] | 80 |
| 3 | [illegible] (TSP) | 24 [illegible] | 300 |
| 4 | [illegible] ($PM_{10}$) | 24 [illegible] | 150 |
| 5 | [illegible] ($PM_{2.5}$) | 24 [illegible] | 75 |

## 8.1.3 [illegible]

[illegible]: 2014 [illegible] 10 [illegible] 23 [illegible]~10 [illegible] 29 [illegible],[illegible],[illegible]

[illegible]: $SO_2$ [illegible] $NO_2$ [illegible] 02 [illegible] 08 [illegible] 14 [illegible] 20 [illegible] 4 [illegible], [illegible] 45 [illegible]; $SO_2$ [illegible] $NO_2$ [illegible] $PM_{10}$ [illegible] $PM_{2.5}$ [illegible] 20 [illegible]; TSP [illegible] 24 [illegible]

## 8.1.4 [illegible]

[illegible] ([illegible]) [illegible] (GB3095-2012) [illegible]-[illegible] (HJ2.2-2008) [illegible],[illegible] 8-1-3[illegible]

**[illegible] 8-1-3 [illegible]**

| [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|
| 1 | [illegible] | [illegible]-[illegible] HJ 482-2009 | [illegible]: 0.007mg/m$^3$<br>[illegible]: 0.004mg/m$^3$ |
| 2 | [illegible] | [illegible] [illegible] ([illegible]) [illegible] HJ479-2009 | [illegible]: 0.015mg/m$^3$<br>[illegible]: 0.006mg/m$^3$ |
| 3 | [illegible] | [illegible] [illegible] [illegible] GB/T15432-1995 | 0.001mg/m$^3$ |
| 4 | $PM_{10}$ | [illegible] $PM_{2.5}$ [illegible] $PM_{10}$ [illegible] [illegible] HJ618-2011 | 0.010mg/m$^3$ |
| 5 | $PM_{2.5}$ | [illegible] $PM_{2.5}$ [illegible] $PM_{10}$ [illegible] [illegible] HJ618-2011 | 0.010mg/m$^3$ |

## 8.1.5 [illegible]

[illegible] 8-1-4~[illegible] 8-1-7[illegible]

**[illegible] 8-1-4 SO$_2$ [illegible]**

| [illegible] | [illegible] | 1 [illegible] | | | | 24 [illegible] | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | [illegible] (mg/Nm$^3$) | [illegible] (%) | [illegible] (%) | [illegible] | [illegible] (mg/Nm$^3$) | [illegible] (%) | [illegible] (%) | [illegible] |
| 1 | [illegible] 1000 [illegible] | 0.008~0.016 | 3.20 | 0 | 0 | 0.009~0.015 | 10.00 | 0 | 0 |
| 2 | [illegible] 1000 [illegible] | 0.007~0.021 | 4.20 | 0 | 0 | 0.009~0.014 | 9.33 | 0 | 0 |
| 3 | [illegible] 90°[illegible] 1000 [illegible] | 0.008~0.019 | 3.80 | 0 | 0 | 0.009~0.013 | 8.67 | 0 | 0 |
| 4 | [illegible] 270°[illegible] 1000 [illegible] | 0.008~0.021 | 4.20 | 0 | 0 | 0.010~0.015 | 10.00 | 0 | 0 |
| 5 | [illegible] | 0.007~0.022 | 4.40 | 0 | 0 | 0.008~0.018 | 12.00 | 0 | 0 |
| 6 | [illegible] 2000 [illegible] | 0.008~0.021 | 4.20 | 0 | 0 | 0.008~0.015 | 10.00 | 0 | 0 |

**[illegible] 8-1-5 NO$_2$ [illegible]**

| [illegible] | [illegible] | 1 [illegible] | | | | 24 [illegible] | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | [illegible] (mg/Nm$^3$) | [illegible] (%) | [illegible] (%) | [illegible] | [illegible] (mg/Nm$^3$) | [illegible] (%) | [illegible] (%) | [illegible] |
| 1 | [illegible] 1000 [illegible] | 0.016~0.028 | 14.00 | 0 | 0 | 0.017~0.023 | 28.75 | 0 | 0 |
| 2 | [illegible] 1000 [illegible] | 0.015~0.027 | 13.50 | 0 | 0 | 0.016~0.024 | 30.00 | 0 | 0 |
| 3 | [illegible] 90°[illegible] 1000 [illegible] | 0.014~0.028 | 14.00 | 0 | 0 | 0.017~0.021 | 26.25 | 0 | 0 |
| 4 | [illegible] 270°[illegible] 1000 [illegible] | 0.015~0.027 | 13.50 | 0 | 0 | 0.018~0.023 | 28.75 | 0 | 0 |
| 5 | [illegible] | 0.015~0.028 | 14.00 | 0 | 0 | 0.016~0.025 | 31.25 | 0 | 0 |
| 6 | [illegible] 2000 [illegible] | 0.016~0. | 13.00 | 0 | 0 | 0.017~0. | 28.75 | 0 | 0 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 026 | | | | 023 | | | |

**[illegible] 8-1-6 TSP [illegible] $PM_{10}$ [illegible]**

| [illegible] | [illegible] | TSP 24 [illegible] | | | | $PM_{10}$ 24 [illegible] | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | [illegible] (mg/Nm³) | [illegible] (%) | [illegible] (%) | [illegible] | [illegible] (mg/Nm³) | [illegible] (%) | [illegible] (%) | [illegible] |
| 1 | [illegible] 1000 [illegible] | 0.207~0.233 | 77.67 | 0 | 0 | 0.091~0.129 | 86.00 | 0 | 0 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 2 | □□□□□□□ 1000 □□ | 0.214~0.240 | 80.00 | 0 | 0 | 0.097~0.128 | 85.33 | 0 | 0 |
| 3 | □□□□ 90°□□□ 1000 □□ | 0.201~0.240 | 80.00 | 0 | 0 | 0.092~0.124 | 82.67 | 0 | 0 |
| 4 | □□□□ 270°□ □□ 1000 □□ | 0.201~0.240 | 80.00 | 0 | 0 | 0.095~0.125 | 83.33 | 0 | 0 |
| 5 | □□□□□□□ | 0.204~0.239 | 79.67 | 0 | 0 | 0.092~0.127 | 84.67 | 0 | 0 |
| 6 | □□□□□ 2000 □□ | 0.212~0.241 | 80.33 | 0 | 0 | 0.094~0.128 | 85.33 | 0 | 0 |

□ **8-1-7** **PM$_{2.5}$** □□□□□□□□□

| □□□□ | □□□□□ | PM$_{10}$ 24 □□□□□□ | | | |
|---|---|---|---|---|---|
| | | □□□□ (mg/Nm$^3$) | □□□□□ (%) | □□□ (%) | □□ □□□□ |
| 1 | □□□□□□□ 1000 □□ | 0.051~0.068 | 90.67 | 0 | 0 |
| 2 | □□□□□□□ 1000 □□ | 0.060~0.069 | 92.00 | 0 | 0 |
| 3 | □□□□ 90°□□□ 1000 □□ | 0.051~0.067 | 89.33 | 0 | 0 |
| 4 | □□□□ 270°□□□ 1000 □□ | 0.054~0.069 | 92.00 | 0 | 0 |
| 5 | □□□□□□□ | 0.055~0.065 | 86.67 | 0 | 0 |
| 6 | □□□□□ 2000 □□ | 0.053~0.068 | 90.67 | 0 | 0 |

## 8.1.6 □□□□□□□□□□□□□

□□ 8-1-4~□ 8-1-7 □□:

① SO$_2$: 6 □□□□ SO$_2$1 □□□□□24 □□□□□□□□□□□, □□□□ SO$_2$1 □□□□□□□□□ 0.022mg/Nm$^3$ □□□□□□□□□□□,□□□□□(0.50mg/Nm$^3$)□ 4.40%; 24 □□□□□□□□□ 0.018mg/Nm$^3$ □□□□□□□□□□□,□□□□□ (0. 15mg/Nm$^3$)□ 12.00%□

② NO$_2$: 6 □□□□ NO$_2$1 □□□□□24 □□□□□□□□□□□, □□□□ NO$_2$1 □□□□□□□□ 0.028mg/Nm$^3$ □□□□□□□□□□□,□□□□□ (0.20mg/Nm$^3$)□ 14.00%; 24 □□□□□□□□□ 0.025mg/Nm$^3$ □□□□□□□□□□□,□□□□□□ (0.08mg/Nm$^3$)□ 31.25%□

③ TSP: 6 □□□□ TSP24 □□□□□□□□□□□, 24 □□□□□□□□□ 0.241mg/Nm$^3$ □□□□□□□□ 2000 □□,□□□□□ (0.30mg/Nm$^3$)□ 80.33%□

④ PM$_{10}$: 6 □□□□ PM$_{10}$24 □□□□□□□□□□□, 24 □□□□□□□

[illegible] 0. 129mg/Nm$^3$ [illegible] 1000 [illegible], [illegible] (0. 15mg/Nm$^3$)[illegible] 86.00%[illegible]

⑤ $PM_{2.5}$: 6 [illegible] $PM_{2.5}$24 [illegible], 24 [illegible] 1000 [illegible] 270°[illegible] 1000 [illegible],[illegible] 0.069mg/Nm$^3$ ,[illegible] (0.075mg/Nm$^3$ )[illegible] 92.00%[illegible]

⑥ [illegible] 6 [illegible], $SO_2$ [illegible] $NO_2$1 [illegible] (GB3095-2012) [illegible] 4.40%[illegible] 14.00%; $SO_2$ [illegible] $NO_2$ [illegible] TSP [illegible] $PM_{10}$ [illegible] $PM_{2.5}$24 [illegible] 12.00% [illegible] 31.25% [illegible] 80.33% [illegible] 86.00%[illegible] 92.00%[illegible]

[illegible],[illegible] (GB3095-2012) [illegible] TSP [illegible] $PM_{10}$ [illegible] $PM_{2.5}$ [illegible],[illegible]

## 8.2 [illegible]

### 8.2.1 [illegible]

[illegible], [illegible] 100m [illegible], [illegible]:[illegible], [illegible]([illegible])[illegible], [illegible], [illegible], [illegible],[illegible]

[illegible],[illegible],[illegible] $NO_2$ [illegible] CO [illegible], [illegible], [illegible], [illegible]; [illegible]

[illegible], [illegible], [illegible]

[illegible],[illegible]

### 8.2.2 [illegible]

[illegible],[illegible]:

[illegible], [illegible]; [illegible]

[illegible], [illegible], [illegible],[illegible] TSP [illegible] 20~50m [illegible]

[illegible],[illegible]

[illegible], [illegible], [illegible], [illegible]

## 8.3 [illegible]

### 8.3.1 [illegible]

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible],[illegible]

[illegible] 30 [illegible] (1982~2011 [illegible])[illegible]:

[illegible]: 1.4m/s

[illegible]: 17.3m/s (1986 [illegible] 5 [illegible] 19 [illegible])

[illegible]: [illegible] (NE)

[illegible]: 10.3℃

[illegible]: 43.2℃ (1986 [illegible] 7 [illegible] 23 [illegible])

[illegible]: -28.9℃ (2002 [illegible] 12 [illegible] 25 [illegible])

[illegible]: 45%

[illegible]: 43. 1mm

[illegible]: 2639.7mm

[illegible]: 25.5 mm(1984 [illegible] 7 [illegible] 10 [illegible], 2002 [illegible] 6 [illegible] 19 [illegible])

[illegible]: 3329.2h

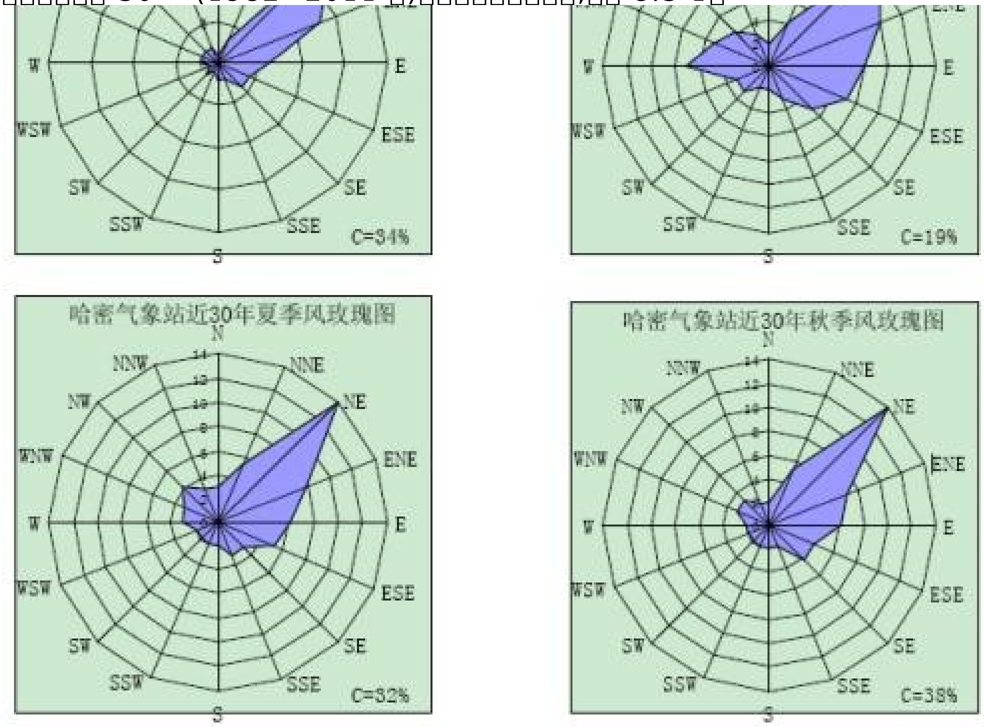
[illegible]: 930.9hPa

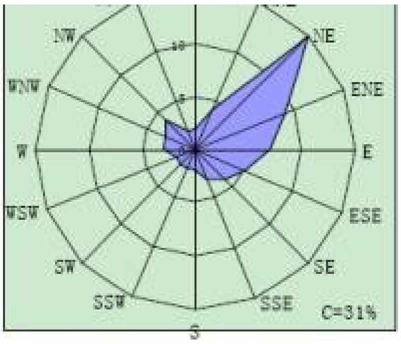
[illegible] 30 [illegible] (1982~2011 [illegible])[illegible],[illegible] 8-3-1[illegible]

**[illegible] 8-3-1 [illegible] 30 [illegible] (1982~2011 [illegible])**

| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | c |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [illegible] | 1 | 3 | 19 | 13 | 6 | 4 | 4 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 34 |
| [illegible] | 2 | 4 | 13 | 10 | 8 | 7 | 5 | 3 | 2 | 2 | 3 | 3 | 7 | 5 | 4 | 3 | 19 |
| [illegible] | 3 | 5 | 14 | 8 | 6 | 5 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 3 | 4 | 3 | 32 |
| [illegible] | 2 | 5 | 14 | 7 | 6 | 4 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 38 |
| [illegible] | 2 | 4 | 15 | 9 | 7 | 5 | 4 | 3 | 2 | 2 | 2 | 2 | 3 | 3 | 4 | 2 | 31 |

[illegible] 30 (1982~2011 [illegible])[illegible],[illegible] 8.3-1[illegible]





[illegible] 8.3-1 [illegible] 30 [illegible] (1982~2011 [illegible])

[illegible] 8.3-1 [illegible]:[illegible] 30 [illegible] ( 1982~2011 [illegible])[illegible] NE~ENE~E[illegible]

## 8.3.2 [illegible]

### 8.3.2.1 [illegible]

[illegible],[illegible]-[illegible] ([illegible])“[illegible],[illegible] … ” [illegible],[illegible],[illegible]

### 8.3.2.2 [illegible]

[illegible] 8 [illegible],[illegible]

[illegible],[illegible],[illegible],[illegible] $80mg/m^3$, [illegible]“ [illegible] 98%[illegible] $80mg/m^3$”[illegible]

[illegible] 25.3m [illegible], [illegible] 0.63m, [illegible] $1.41\times10^4m^3/h$, [illegible]“ [illegible] 98% [illegible] $80mg/m^3$” [illegible] $80mg/m^3$ [illegible],[illegible] $80mg/m^3$ [illegible]: [illegible]

1.128kg/h[illegible]

## 8.3.2.3 [illegible]

[illegible], [illegible] [illegible] (HJ2.2-2008),[illegible] [illegible], [illegible], [illegible]

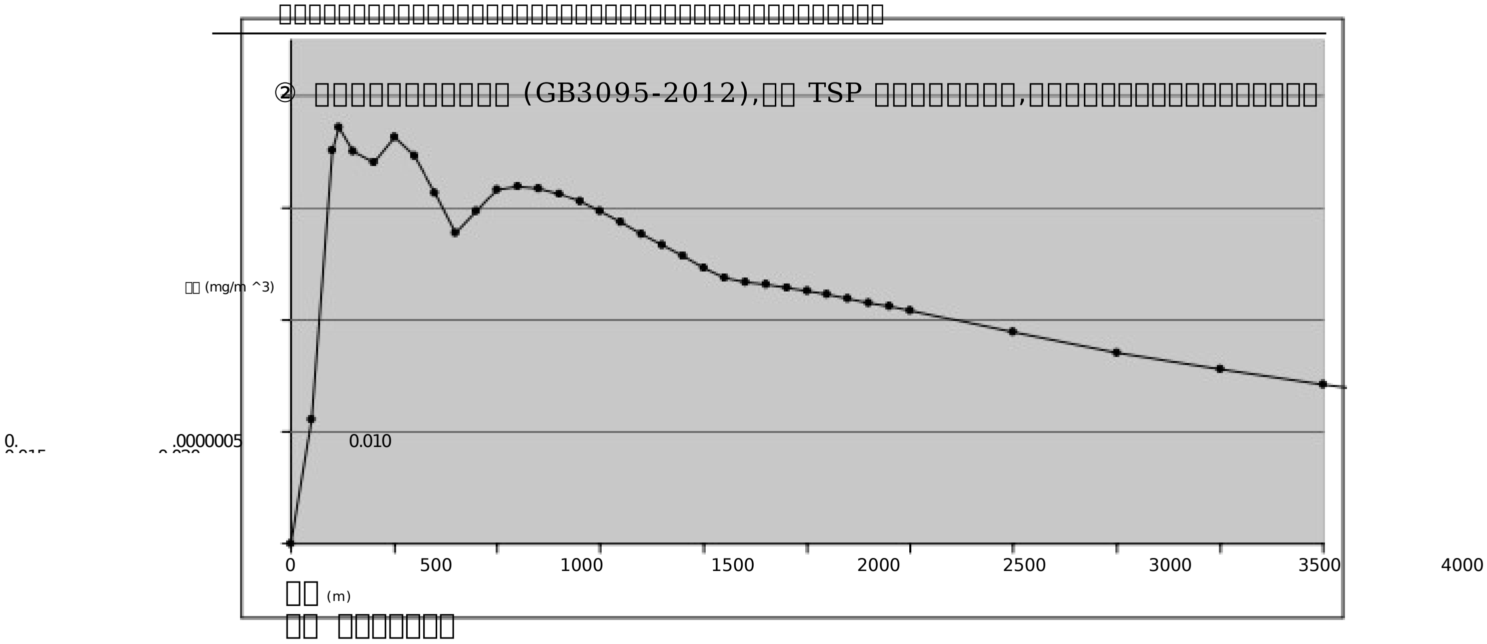
[illegible] 8-3-2 [illegible] 8.3-2[illegible]

[illegible] 8-3-2 [illegible]

| [illegible] D/m | TSP | |
|---|---|---|
| | [illegible] $mg/m^3$ | [illegible] % |
| 100 | 0.0056 | 0.62 |
| 200 | 0.0176 | 1.95 |
| 300 | 0.0175 | 1.95 |
| 400 | 0.0170 | 1.89 |
| 500 | 0.0182 | 2.02 |
| 600 | 0.0173 | 1.93 |
| 700 | 0.0157 | 1.74 |
| 800 | 0.0139 | 1.54 |
| 900 | 0.0148 | 1.65 |
| 1000 | 0.0158 | 1.76 |
| 1100 | 0.0160 | 1.78 |
| 1200 | 0.0159 | 1.77 |
| 1300 | 0.0156 | 1.74 |
| 1400 | 0.0153 | 1.70 |
| 1500 | 0.0148 | 1.65 |
| 1600 | 0.0144 | 1.59 |
| 1700 | 0.0139 | 1.54 |
| 1800 | 0.0133 | 1.48 |
| 1900 | 0.0128 | 1.43 |
| 2000 | 0.0123 | 1.37 |
| 2100 | 0.0119 | 1.32 |
| 2200 | 0.0117 | 1.30 |
| 2300 | 0.0116 | 1.29 |
| 2400 | 0.0115 | 1.27 |
| 2500 | 0.0113 | 1.26 |
| 2600 | 0.0111 | 1.24 |
| 2700 | 0.0110 | 1.22 |
| 2800 | 0.0108 | 1.20 |
| 2900 | 0.0106 | 1.18 |
| 3000 | 0.0104 | 1.16 |
| 3500 | 0.0094 | 1.05 |
| 4000 | 0.0085 | 0.95 |
| 4500 | 0.0078 | 0.86 |
| 5000 | 0.0071 | 0.79 |
| [illegible] | 0.0186 | 2.06 |

[illegible]:① [illegible] 233m[illegible]

② [illegible] (GB3095-2012),[illegible] TSP [illegible],[illegible]



**[illegible] 8.3-2 [illegible] TSP [illegible]**

[illegible] 8-3-2 [illegible] 8.3-2 [illegible]:[illegible], [illegible], [illegible],[illegible] (GB3095-2012)[illegible], [illegible], [illegible],[illegible],[illegible]

## 8.3.2.4 [illegible]

[illegible],[illegible], [illegible], [illegible], [illegible], [illegible],[illegible], [illegible] 58m, [illegible] 6 [illegible] t[illegible], [illegible],[illegible], [illegible] 98%, [illegible], [illegible], [illegible], [illegible], [illegible]=, [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

[illegible]

## 8.4 [illegible]

### 8.4.1 [illegible]

[illegible]，[illegible] 98%，[illegible]，[illegible] $80mg/m^3$,[illegible](GB20426-2006)[illegible]，[illegible]，[illegible]，[illegible]，[illegible] $10mg/m^3$ [illegible],[illegible]

### 8.4.2 [illegible]

[illegible]，[illegible]，[illegible]

### 8.4.3 [illegible]

[illegible]，[illegible]，[illegible]，[illegible]，[illegible]，[illegible]，[illegible],[illegible] 58m,[illegible] 6 [illegible] t,[illegible]

### 8.4.4 [illegible]

[illegible],[illegible]

# 9 [illegible]

## 9.1 [illegible]

### 9.1.1 [illegible]

(1)[illegible]

[illegible],[illegible],[illegible], [illegible] +510~+630m, [illegible] 50m[illegible], [illegible],[illegible],[illegible]

[illegible] 1.4m/s,[illegible],[illegible] 9.8℃[illegible]

(2)[illegible]

[illegible], [illegible], [illegible] 2 [illegible]

(3)[illegible]

[illegible]

(4)[illegible]

[illegible]

### 9.1.2 [illegible]

#### 9.1.2.1 [illegible]

[illegible],[illegible] 3 [illegible] 5. 1-10 [illegible] 9-1-1[illegible]

[illegible] **9-1-1** [illegible]

| [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|
| 1 | [illegible] | [illegible] 4 [illegible] 1m | [illegible] |
| 2 | [illegible] | [illegible] 4 [illegible] 1m | [illegible] |

| | | | |
|---|---|---|---|
| 3 | [illegible] | [illegible] | [illegible] |
| 4 | [illegible] | [illegible] | [illegible] |

### 9.1.2.2 [illegible]

[illegible] 2014 [illegible] 10 [illegible] 26-28 [illegible], [illegible] (8: 00~24: 00) [illegible] (24: 00~8: 00)[illegible]

### 9.1.2.3 [illegible]

[illegible] AWA6218-B [illegible], [illegible] (GB3096-2008)[illegible] A [illegible],[illegible] A [illegible] Leq [illegible]

### 9.1.2.4 [illegible]

[illegible]

### 9.1.2.5 [illegible]

[illegible] 9-1-2[illegible]

**[illegible] 9-1-2** [illegible] **[illegible] dB(A)**

| [illegible] | 2014.10.26<br>[illegible] | [illegible] | 2 014.[illegible] [illegible] | 10.27<br>[illegible] |
|---|---|---|---|---|
| [illegible] | 43.7 | 38.2 | 44.5 | 32. |
| [illegible] | 43.3 | 38.6 | 42.2 | 34. |
| [illegible] | 44.0 | 38.6 | 42.7 | 33.5 |
| [illegible] | 42.0 | 36.6 | 43.8 | 36.5 |
| [illegible] | 43.8 | 35.9 | 43.3 | 34.2 |
| [illegible] | 42.7 | 35.8 | 42.9 | 35.6 |
| [illegible] | 43.8 | 34.8 | 44.1 | 34.8 |
| [illegible] | 43.6 | 34.5 | 43.2 | 34.0 |
| [illegible] | 44.3 | 37.1 | 43.7 | 35.3 |

| [illegible] | 2014.10.26 | | 2014.10.27 | |
|---|---|---|---|---|
| | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | 44.4 | 35.4 | 42.5 | 36.8 |
| [illegible] 2 [illegible] | 60 | 50 | 60 | 50 |

[illegible] 9-1-2 [illegible], [illegible](GB3096-2008) 2 [illegible]

### 9.1.2.6 [illegible]

[illegible], [illegible], [illegible], [illegible] (GB3096-2008) 2 [illegible]

## 9.2 [illegible]

### 9.2.1 [illegible]

[illegible],[illegible], [illegible] 9-2-1[illegible]

[illegible] **9-2-1** [illegible]

| [illegible] | [illegible] | [illegible] dB(A) | [illegible] |
|---|---|---|---|
| 1 | [illegible] | 73～83 | [illegible] 15m |
| 2 | [illegible] | 67～77 | [illegible] 15m |
| 3 | [illegible] | 78～89 | [illegible] 1m |
| 4 | [illegible] | 80 | [illegible] 15m |
| 5 | [illegible] | 93 | [illegible] 1m |
| 6 | [illegible] | 103 | [illegible] 1m |
| 7 | [illegible] | 72～73 | [illegible] 15m |
| 8 | [illegible] | 78 | [illegible] 1m |

| □□ | □□□□ | □□□ dB(A) | □ □ |
|---|---|---|---|
| 9 | □□□ | 88 | □□□□ 1m |
| 10 | □□□ | 92 | □□□ 1m |
| 11 | □□□ | 95 | □□□ 1m |
| 12 | □□□□□□□□ | 80～85 | □□□ 7.5m |

## 9.2.2 □□□□□□□□□□□□

□□□□□□□□□□□□, □□□□□□□□, □□□□□□□□□□□□□□□□□□□□□□□□□□□□,□□□□□□ 9-2-2□

□ **9-2-2** □□□□□□□□□□□□ **□□: dB (A)**

| □□□□<br>□□ | | □□□□□□□ | □□□□□□ | □□□□□□□□□□ | □□□□□□□□□□ | □□□□ |
|---|---|---|---|---|---|---|
| □□□□□□ | | □□□□□□□□ | □□□ | □□□□□□□□□□□ | □□□□□□□□□□ | □□□□□□ |
| □□□□ | □□□□ | 71.0 | 65.0 | 68.0 | 66.0 | 58.0 |
| □□□□ | □□ | 70 | | | | |
| | □□ | 55 | | | | |

□□ 9-2-2 □□□□: □□□□□□□□□□□□□□□□□□□□□□, □□□□□□□□□□□□□□□□□□□□□□□□□□□□□, □□□□□□□□□□□□□□□□□□□□□□□□□□□□□, □□□□□□□□□□□□□□□□□□□□□□□□

## 9.3 □□□□□□□□□□

□□□□□□□ 200m □□□□□□□□□□, □□□□□□□□□□: □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

[illegible],[illegible],[illegible]

## 9.3.1 [illegible]

[illegible] [illegible] (HJ 2.4-2009),[illegible] CadnaA [illegible], [illegible], [illegible], [illegible]:

(1)[illegible]

① [illegible],[illegible] LP(r);

② [illegible];

③ [illegible] LP(r0),[illegible] LP(r);

(2)[illegible]

[illegible] i [illegible] A [illegible] LAi , [illegible] T [illegible] ti;[illegible] j [illegible] A [illegible] LAj,[illegible] T [illegible] tj,[illegible]:

$$L_{eqg} = 10\lg\left[\frac{1}{T}\left(\sum_{i=1}^{N} t_i 10^{0.1LAi} + \sum_{j=1}^{M} t_j 10^{0.1LAj}\right)\right]$$

[illegible]: ti —[illegible] T [illegible] i [illegible], s ;

tj —[illegible] T [illegible] j [illegible], s ;

T —[illegible], s ;

N —[illegible];

M —[illegible]

## 9.3.2 [illegible]

[illegible], [illegible], [illegible], [illegible]

## (1) [illegible]

[illegible], [illegible], [illegible] X [illegible], Y [illegible], [illegible] Z [illegible]([illegible])[illegible]

[illegible]: [illegible]([illegible]): (0 , 0), [illegible]([illegible]) :(805 , 900);[illegible] 10m×10m;[illegible] 1.2m[illegible]

[illegible], [illegible]

## (2) [illegible]

[illegible], [illegible], [illegible],[illegible] 9-3-1[illegible]

[illegible] **9-3-1** [illegible]

| [illegible] | [illegible]/[illegible] | [illegible] | [illegible] 1m [illegible] (dB) |
|---|---|---|---|
| [illegible] | [illegible] 2 [illegible] | [illegible] [illegible],[illegible] | 72 |
| [illegible] | [illegible] 3 [illegible] | [illegible],[illegible], [illegible] | 75 |
| [illegible] | [illegible] 2 [illegible] 2 [illegible] 2 [illegible] 2 [illegible] | [illegible], [illegible]; [illegible];[illegible]; [illegible]; [illegible],[illegible] | 78 |
| [illegible] | [illegible] | [illegible], [illegible],[illegible] | 75 |
| [illegible] | [illegible] 2 [illegible], [illegible] 1 [illegible], [illegible] 3 [illegible] | [illegible],[illegible],[illegible],[illegible] | 78 |

| | | | |
|---|---|---|---|
| [illegible] | [illegible] 2 [illegible] | [illegible],[illegible],[illegible],<br>[illegible],[illegible] | 80 |

### 9.3.3 [illegible]

[illegible] 9-3-3[illegible]

**[illegible] 9-3-3** [illegible] [illegible]: **dB (A)**

| [illegible] | [illegible] | | [illegible] | | [illegible] | |
|---|---|---|---|---|---|---|
| | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | 43.5 | 35.0 | 53.10 | 44.5 | — | 0 |
| [illegible] | 42.8 | 35.7 | 53.60 | 45.1 | — | 0 |
| [illegible] | 43.9 | 34.8 | 54.70 | 43.8 | — | 0 |
| [illegible] | 43.4 | 34.3 | 57.10 | 43.5 | — | 0 |
| [illegible] | **60** | **50** | **60** | **50** | **/** | **/** |

[illegible]:[illegible]

[illegible]:

[illegible] (GB12348__2008)[illegible] 2 [illegible]

## 9.4 [illegible]

### 9.4.1 [illegible]

[illegible], [illegible], [illegible]([illegible]),[illegible] 1m [illegible] 85dB (A),[illegible]

### 9.4.2 降低噪声保护措施

(1)钢筋加工车间的降噪措施

钢筋加工车间设在场区内，为全封闭式加工车间，使加工噪声得到控制，钢筋加工时噪声应控制在 75dB (A)以下。

(2)木工车间的降噪措施

木工车间采取全封闭式加工车间，车间内设置吸音板，隔绝噪声向外传播的同时降低噪声，使木工房的噪声控制在施工现场 75dB (A)以下。

(3)地下结构混凝土

① 工作面降噪措施

顶板混凝土浇筑，采用在顶板模板下侧设置吸音墙、隔音材料及降噪措施，振捣棒插入混凝土深度控制在 1~1.5 倍；振捣器振捣的时间 10~20mm,振捣完后，振捣工具不得在钢筋上振动；混凝土振捣器的振动，不得与模板(或脚手架) 钢筋直接接触，严禁在其上，振捣完成后，混凝土表面不得出现水泥浆(泛浆)层，采取以上措施降低了混凝土振捣噪声；混凝土振捣的提升与插入速度，控制在每秒 10mm。

② 地泵降噪措施

混凝土地泵及搅拌车，每台车都需要设置隔音棚；对施工中产生的噪声，应采取在地泵周围设置隔音棚的措施，并使之全封闭降噪；混凝土泵车停车后应熄火；混凝土泵车的泵管，要在泵管与支架、墙体、楼板连接的部位设置防止噪声传出的隔振垫；混凝土罐车运送混凝土，严禁在施工现场鸣笛，罐车等候时应熄火，减少噪声对周围的影响,降低噪声污染。

③ 运输车辆进入施工现场，保证施工现场道路平整度，减少车辆颠簸,降低机械设备运转时产生噪声，夜间施工时不得鸣笛；在现场车辆运行时应控制行驶速度；设备及材料装卸时轻拿轻放；噪声较大的机械设备应做好隔音处理；如出现噪声超标的情况，立即停止作业，查找噪声超标原因，采取措施降低噪声后方可继续施工，并做好与周边居民的沟通协调工作。

(4)现场施工时的其它降噪措施及设置降噪隔离

施工中所用的模板材料及各种材料装卸时，应采取轻拿轻放的措施，严禁

[illegible], [illegible]: [illegible], [illegible], [illegible],[illegible]

(5)[illegible]

[illegible], [illegible], [illegible], [illegible], [illegible] 20dB(A), [illegible],[illegible],[illegible]

(6)[illegible]

[illegible], [illegible], [illegible], [illegible] 80dB (A)[illegible], [illegible],[illegible] 15 ~ 20dB(A)[illegible]

## 9.5 [illegible]

(1)[illegible],[illegible], [illegible] (GB3096-2008) 2 [illegible]

(2)[illegible],[illegible] 200m [illegible], [illegible], [illegible], [illegible], [illegible]

(3)[illegible] (GB12348__2008)[illegible] 2 [illegible]

[illegible], [illegible], [illegible],[illegible]

# 10.[illegible]

## 10.1 [illegible]

[illegible],[illegible] 10-1-1[illegible]

**[illegible] 10-1-1** [illegible]

| [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|
| [illegible] | [illegible] | [illegible]:<br>$57526m^3$<br>[illegible]:<br>$192447m^3$ | [illegible] 12.0Mt/a [illegible] $57526m^3$,[illegible],[illegible];[illegible] |
| | [illegible] | [illegible] 117.18 [illegible] $m^3$ [illegible] 83.11 [illegible] $m^3$ | [illegible],[illegible] 34.07 [illegible] $m^3$,[illegible], [illegible]; |
| | [illegible][1] | 40.8t | [illegible],[illegible] |

[illegible]: [1][illegible] 0.5kg [illegible],[illegible] 80 [illegible],[illegible] 34 [illegible]

[illegible] 10-1-1 [illegible], [illegible], [illegible],[illegible] 32.831km,[illegible] 12m[illegible] 9.0m,[illegible] 1.5m,[illegible] 14.0 [illegible] $m^3$ [illegible],[illegible] 5.887km,[illegible] 4.5m[illegible] 3.5m,[illegible] 0.5m,[illegible] $6600m^3$ [illegible], [illegible] 34.07 [illegible] $m^3$ [illegible], [illegible], [illegible],[illegible],[illegible],[illegible],[illegible]

[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

## 10.2 [illegible]

[illegible] 10-2-1[illegible]

[illegible] 10-2-1 [illegible]

| [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|
| [illegible] | [illegible] | 111 [illegible] t/a | [illegible], [illegible],[illegible], [illegible], [illegible] |
| | [illegible] | 315.5t/a | [illegible], [illegible] |
| | [illegible] | [illegible]: 541t/a<br>[illegible]: 18.6kg/a | [illegible], [illegible],[illegible] |

## 10.2.1 [illegible]

[illegible],[illegible]

### 10.2.1.1 [illegible]

[illegible] 40 [illegible] $m^3$ ,[illegible] 30 [illegible] m3,[illegible] 10 [illegible] m3,[illegible] 20 [illegible] m3[illegible] 40.2km,[illegible] 65km,[illegible],[illegible],[illegible],[illegible] 3 [illegible],[illegible] 2.6 [illegible] t/a,[illegible] 1.5 [illegible] $m^3$/a[illegible],[illegible],[illegible] 109 [illegible] t/a , [illegible], [illegible],[illegible],[illegible]

[illegible],[illegible] 300m [illegible],[illegible] 5$hm^2$ ,[illegible] 3~5 [illegible],[illegible],[illegible],[illegible],[illegible],[illegible] 20km [illegible]

### 10.2.1.2 [illegible]

[illegible],[illegible],[illegible],[illegible]

[illegible],[illegible] 300m [illegible],[illegible],[illegible],[illegible]

### 10.2.1.3 [illegible]

[illegible] $SO_2$[illegible]CO[illegible]:

① [illegible]([illegible])[illegible];② [illegible];③ [illegible];④ [illegible]①[illegible],②③ [illegible]

[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

[illegible]:

(1) [illegible],[illegible],[illegible]

(2) [illegible], [illegible],[illegible],[illegible],[illegible]

## 10.2.2 [illegible]

[illegible], [illegible] 315.5t/a , [illegible],

[illegible]

[illegible] 18.6kg/a,[illegible],[illegible],[illegible]__[illegible] 541t/a,[illegible],[illegible]

[illegible], [illegible], [illegible]

## 10.3 [illegible]

### 10.3.1 [illegible]

[illegible],[illegible]__[illegible],[illegible],[illegible]

(1) [illegible]

pH[illegible] 10 [illegible]

(2) [illegible]

[illegible] GB5085.1-2007 [illegible]—[illegible];[illegible] GB5085.3-2007 [illegible] 10-3-1[illegible]

**[illegible] 10-3-1** [illegible]

| | | |
|---|---|---|
| pH | [illegible] pH [illegible] GB/T 6920-1986 | / |
| [illegible] | [illegible] HJ 636-2012 | 0.05mg/L |
| [illegible] | [illegible] GB 11893-1989 | 0.01mg/L |
| [illegible] | [illegible] GB 7475-1987 | 0.001mg/L |
| [illegible] | [illegible] GB 7475-1987 | 0.01mg/L |
| [illegible] | [illegible] GB 7475-1987 | 0.05mg/L |
| [illegible] | [illegible]-[illegible] GB 7466-1987 | 0.004mg/L |
| [illegible] | [illegible] SL 327.1-2005 | 0.0002mg/L |
| [illegible] | [illegible] GB 11912-1989 | 0.05mg/L |
| [illegible] | [illegible] GB/T 5750.6-2006 (8.1) | 0.0001mg/L |

(3) [illegible]

[illegible] 10-3-2[illegible]

**[illegible] 10-3-2 [illegible] [illegible]: mg/L**

| [illegible] | [illegible] | [illegible] GB 5085.3-2007 | [illegible] (GB 5085.1-1996) | [illegible] GB8978-1996 [illegible] |
|---|---|---|---|---|
| [illegible] | <0.05 | 10 | / | / |
| [illegible] | 0.0029 | 1.5 | / | / |
| [illegible] | <0.0001 | 0.05 | / | / |
| [illegible] | <0.01 | 3 | / | / |
| [illegible] | <0.001 | 50 | / | 0.5 |
| [illegible] | <0.05 | 50 | / | 2.0 |
| [illegible] | <0.004 | 10 | / | / |
| pH | 8.40 | / | pH [illegible]≥12.5，[illegible]≤2.0 | 6-9 |
| [illegible] | 13.8 | / | / | / |
| [illegible] | 1.07 | / | / | / |

(4) [illegible]

[illegible]—[illegible] (GB5085.3-2007)) [illegible]-[illegible] (GB 5085. 1-1996) [illegible]， [illegible]，[illegible] (GB8978—1996) [illegible]， [illegible] pH [illegible] 6~9 [illegible]，[illegible]I[illegible]

## 10.3.2 [illegible]

### 10.3.2.1 [illegible]

(1) [illegible]

[illegible]，[illegible]，[illegible]，[illegible]，[illegible]

(2) [illegible]

[illegible]，[illegible]，

[illegible],[illegible],[illegible]

(3)[illegible]

[illegible] WC8E [illegible], [illegible] DBT488 [illegible], [illegible],[illegible],[illegible] WC8E [illegible],[illegible] 8t,[illegible] WC8E [illegible] 8 [illegible],[illegible], [illegible] 6 [illegible], 2 [illegible] 2 [illegible] DBT488 [illegible]

### 10.3.2.2 [illegible]

(1)[illegible]

[illegible],[illegible],[illegible], [illegible]+50mm [illegible], [illegible], [illegible]([illegible])[illegible]

[illegible],[illegible],[illegible];[illegible],[illegible];[illegible] 30m [illegible],[illegible],[illegible] 15m [illegible]

(2)[illegible]

[illegible] 45[illegible], [illegible], [illegible] 5.0m, [illegible]; [illegible], [illegible] 4.0m [illegible] 10m [illegible]

(3)[illegible]

[illegible],[illegible],[illegible]

(4)[illegible]

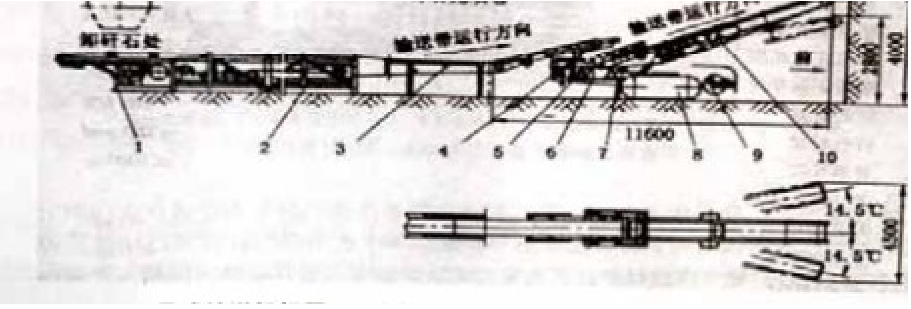
[illegible], [illegible], [illegible] l~2 [illegible],[illegible],[illegible],

[illegible],[illegible]:

① [illegible],[illegible]

② [illegible],[illegible],[illegible],[illegible] (2.2m)[illegible]

③ [illegible],[illegible],[illegible],[illegible],[illegible]


卸矸石处
输送带运行方向
输送带运行方向
1
2
3
4
5
6
7
8
9
10
11600
2800
4000
14.5℃
14.5℃
4500

1 [illegible];2 [illegible];3 [illegible];4 [illegible];5 [illegible];
6 [illegible];7 [illegible];8 [illegible];9 [illegible];10 [illegible]

④ [illegible], [illegible](≥ 500mm)[illegible],[illegible] 8 [illegible]([illegible] 4m)[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

⑤ [illegible],[illegible],[illegible],[illegible]

⑥ [illegible],[illegible], [illegible] 100%[illegible]

[illegible], [illegible],[illegible]<5mm [illegible], [illegible]

[illegible],[illegible]

(5)[illegible]

[illegible] DPS1011/650 [illegible] CTS37.5/83 [illegible],[illegible] 14.5° , [illegible] 4.5m , [illegible] 2.5m/s , [illegible] 1.8~4.0m [illegible], [illegible] 0.5m/s ,[illegible],[illegible],[illegible]

### 10.3.2.3 [illegible]

(1)[illegible]

① [illegible]

[illegible],[illegible] 3 [illegible],[illegible] $600m^3$/[illegible],[illegible] 1.4,[illegible] 1.0 [illegible] $m^3$/a[illegible],[illegible],[illegible],[illegible] 3 [illegible] 0.5 [illegible],[illegible] 1.5 [illegible] $m^3$/a[illegible]

[illegible],[illegible],[illegible], [illegible], [illegible]

② [illegible]

[illegible] 100m [illegible],[illegible] 25m,[illegible] $12m^2$ [illegible] $300m^3$[illegible]

[illegible] 2 [illegible],[illegible] 2800m/a, [illegible] 2100m/a[illegible] 77 [illegible],[illegible] 2.3 [illegible] $m^3$ [illegible],[illegible] 0.6 [illegible],[illegible] 1.38 [illegible] $m^3$[illegible]

[illegible] 50m, [illegible] 150m, [illegible] 150m, [illegible] $16.6m^2$; [illegible] 100m,[illegible] $19.0m^2$ ,[illegible] 80m,[illegible] 12.8 $m^2$[illegible] 3 [illegible], [illegible]

[illegible] 1.6 [illegible] $m^3$,[illegible] 0.6,[illegible] 0.9 [illegible] $m^3$[illegible]

1.38+0.9=2.23 [illegible] $m^3$>1.5 [illegible] $m^3$ ([illegible])

[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

(2)[illegible]

[illegible] 109 [illegible] t/a,[illegible] 60.5 [illegible] $m^3$/a, [illegible], [illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

① [illegible]

[illegible],[illegible],[illegible],[illegible],[illegible] 3 [illegible] 0.95km$^2$, [illegible] 509.6 [illegible] t; 5 [illegible] 1.08km$^2$,[illegible] 312.4 [illegible] t; 6 [illegible] 1. 11km$^2$,[illegible] 268.7 [illegible] t; 7 [illegible] 1. 17km$^2$,[illegible] 1245.9 [illegible] t; 10 [illegible] 1.26km$^2$,[illegible] 934.5 [illegible] t; [illegible] 3271.1 [illegible] t[illegible]

② [illegible]

[illegible], [illegible], [illegible] 5.0m, [illegible], [illegible] 4.0m, [illegible] 2.5m [illegible], [illegible],[illegible] 4.0m[illegible] 45[illegible], [illegible], [illegible] 10m [illegible]

[illegible],[illegible] 5m,[illegible] 10m [illegible], [illegible] 0.33, [illegible], [illegible] 0.85 [illegible], [illegible] 0.28[illegible] 3271.1 [illegible] t, [illegible] 915.9 [illegible] t,[illegible] 654.2 [illegible] $m^3$ [illegible] 244217m,[illegible] 305256m[illegible]

[illegible] 109 [illegible] t,[illegible] 60.5 [illegible] $m^3$, [illegible] 10.8a [illegible]

[illegible],[illegible],[illegible],[illegible]

[illegible],[illegible],[illegible] 10a [illegible],[illegible] 5a [illegible], [illegible], [illegible], [illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

(3)[illegible]

[illegible];[illegible];[illegible],[illegible];[illegible]

[illegible],[illegible],[illegible],[illegible]

# 11.[illegible]

[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]“[illegible]” [illegible],[illegible],[illegible], [illegible],[illegible] ([illegible])[illegible]2014 [illegible] 10 [illegible][2014]389 [illegible]([illegible])[illegible]

## 11.1 [illegible]

### 11.1.1 [illegible]

[illegible],[illegible], [illegible] 2500t/km$^2$·a , [illegible],[illegible] 10000t/km$^2$·a[illegible], [illegible] (SL190-2007),[illegible],[illegible] 2000t/km$^2$·a [illegible]11-1-1[illegible]

[illegible] **11-1-1** [illegible]

| [illegible] (hm$^2$) | [illegible] (km$^2$) | [illegible] (km$^2$) | | | | | [illegible] (t/km$^2$·a) |
|---|---|---|---|---|---|---|---|
| | | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | |
| 129.56 | 129.56 | 80.63 | | | 48.93 | | 2500 |

## 11.1.2 [illegible]

[illegible],[illegible],[illegible] 20.7 [illegible], [illegible] 8.2 [illegible], [illegible] 11.8 [illegible], [illegible] 0.5 [illegible], [illegible] 0.2 [illegible]“[illegible]”; [illegible]312 [illegible], [illegible], [illegible], [illegible],[illegible],[illegible];[illegible],[illegible]

## 11.1.3 [illegible]

[illegible],[illegible],[illegible],[illegible]

(1) [illegible]

[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

(2) [illegible]

[illegible],[illegible], [illegible], [illegible],[illegible]

(3) [illegible]

[illegible],[illegible],[illegible],[illegible]

[illegible],[illegible],[illegible],[illegible],[illegible]

## 11.2 [illegible]

### 11.2.1 [illegible]

[illegible] 833.01hm$^2$, [illegible] 129.56hm$^2$,[illegible] 703.45hm$^2$[illegible]

(1)[illegible]

[illegible] 129.56hm$^2$,[illegible] 101.06hm$^2$,[illegible] 28.5hm$^2$[illegible]

(2)[illegible]

① [illegible]

[illegible] 44.05hm$^2$, [illegible], [illegible],[illegible],[illegible] 3m [illegible],[illegible] 0.80hm$^2$[illegible]

② [illegible]

[illegible] 4.88hm$^2$,[illegible] 3m [illegible],[illegible] 0.27hm$^2$[illegible]

③ [illegible]

[illegible],[illegible],[illegible] 2.5m [illegible],[illegible] 0.5hm$^2$[illegible]

④ [illegible]

[illegible],[illegible],[illegible] 3m [illegible],[illegible] 34.2hm$^2$[illegible]

⑤ [illegible]

[illegible], [illegible] 2hm$^2$[illegible] 2m , [illegible] 41.6hm$^2$[illegible]

⑥ [illegible]

[illegible] 49hm$^2$,[illegible] 3m [illegible],[illegible] 0.84hm$^2$[illegible]

⑦ [illegible]

[illegible],[illegible],[illegible] 625.00hm$^2$ [illegible] 11-2-1[illegible]

[illegible] **11-2-1** [illegible]

| [illegible] | [illegible] | [illegible] | | |
|---|---|---|---|---|
| | | [illegible] | [illegible] | [illegible] |
| 1 | [illegible] | 44.05 | 0.80 | 44.85 |
| 2 | [illegible] | 4.88 | 0.27 | 5.15 |
| 3 | [illegible] | 1.13 | 0.75 | 1.88 |
| 4 | [illegible] | 28.50 | 34.20 | 62.70 |
| 5 | [illegible] | 2.00 | 41.60 | 43.60 |
| 6 | [illegible] | 49.00 | 0.84 | 49.84 |
| 7 | [illegible]([illegible] | | 625.00 | 625.00 |
| [illegible] | | 174.56 | 129.56 | 703.45 |

## 11.2.2 [illegible]

[illegible],[illegible],[illegible];[illegible],[illegible],[illegible]

[illegible],[illegible],[illegible],[illegible]

[illegible],[illegible],[illegible],[illegible],[illegible]

[illegible],[illegible],[illegible]

[illegible]([illegible])[illegible],[illegible],[illegible],[illegible]

# 11.2.3 [illegible]

## 11.2.3.1 [illegible]

[illegible],[illegible],[illegible],[illegible]

[illegible],[illegible],[illegible], [illegible],[illegible],[illegible]

[illegible],[illegible],[illegible],[illegible],[illegible]

(1)[illegible]([illegible])

[illegible], [illegible], [illegible] 11-2-2[illegible] 11.2-3[illegible]

(2)[illegible]

[illegible],[illegible],[illegible]

[illegible], [illegible], [illegible],[illegible] 2~3 [illegible],[illegible],[illegible] 3 [illegible]

(3)[illegible]

[illegible],[illegible],[illegible]

[illegible] 11-2-2 [illegible] 11.2-3[illegible]

[illegible] **11-2-2** [illegible]

| [illegible] | [illegible] | |
|---|---|---|
| | [illegible]([illegible]) | [illegible] |
| [illegible] | 0.5 | 3 |
| [illegible] | 0.5 | 3 |

[illegible] **11-2-3** [illegible]

| [illegible] | [illegible] | |
|---|---|---|
| | [illegible]([illegible]) | [illegible] |
| [illegible] | 3 | 3 |
| [illegible] | 3 | 3 |
| [illegible] | 1 | 3 |
| [illegible] | 0.5 | 3 |

### 11.2.3.2 [illegible]

(1)[illegible]

[illegible],[illegible],[illegible]

(2)[illegible]

[illegible],[illegible],[illegible],[illegible],[illegible]

(3)[illegible]

[illegible],[illegible],[illegible]

(4)[illegible]

[illegible],[illegible],[illegible]: [illegible],[illegible],[illegible];[illegible];[illegible],[illegible]

(5)[illegible]

[illegible], [illegible] [illegible],[illegible],[illegible]

### 11.2.3.3 [illegible]

[illegible],[illegible]:

(1)[illegible] 129.56hm$^2$[illegible]

(2)[illegible] 129.56hm$^2$[illegible]

(3) [illegible] 117.18 [illegible] m$^3$, [illegible] 83.11 [illegible] m$^3$, [illegible] 14.66 [illegible] m$^3$ [illegible], [illegible] 34.07 [illegible] m$^3$, [illegible], [illegible], [illegible] 82.91 [illegible] m$^3$, [illegible] 82.91 [illegible] m$^3$ [illegible] 34.27 [illegible] m$^3$,[illegible] 0.2 [illegible] m$^3$, [illegible] 34.07 [illegible] m$^3$[illegible]

(4) [illegible] 6 [illegible], [illegible] 6.25km$^2$, [illegible] 3.33 km$^2$,[illegible] 0.54 km$^2$,[illegible]

(5)[illegible] 2.59 [illegible] t,[illegible] 1.41 [illegible] t[illegible] 0.86 [illegible] t, [illegible] 0.20 [illegible] t; [illegible] 1.72 [illegible] t,[illegible] 1.21t[illegible]

# 11.3 [illegible]

## 11.3.1 [illegible]

[illegible], [illegible]

(1)[illegible]

[illegible], [illegible] (GB50434-2008) [illegible], [illegible], [illegible]>95%[illegible]

(2)[illegible]

[illegible] 40mm, [illegible] (GB50434-2008) [illegible], [illegible] 300mm [illegible],[illegible],[illegible],[illegible]

(3)[illegible]

[illegible] (GB50434-2008) [illegible], [illegible] 0.5,[illegible] 0.7,[illegible] 0.5[illegible]

(4)[illegible]

[illegible] (GB50434-2008)[illegible],[illegible] 90%,[illegible] 95%,[illegible] 95%[illegible]

(5) [illegible], [illegible]: [illegible]>95%, [illegible]>79%, [illegible] 0.5, [illegible] 95%, [illegible] 11-3-1[illegible]

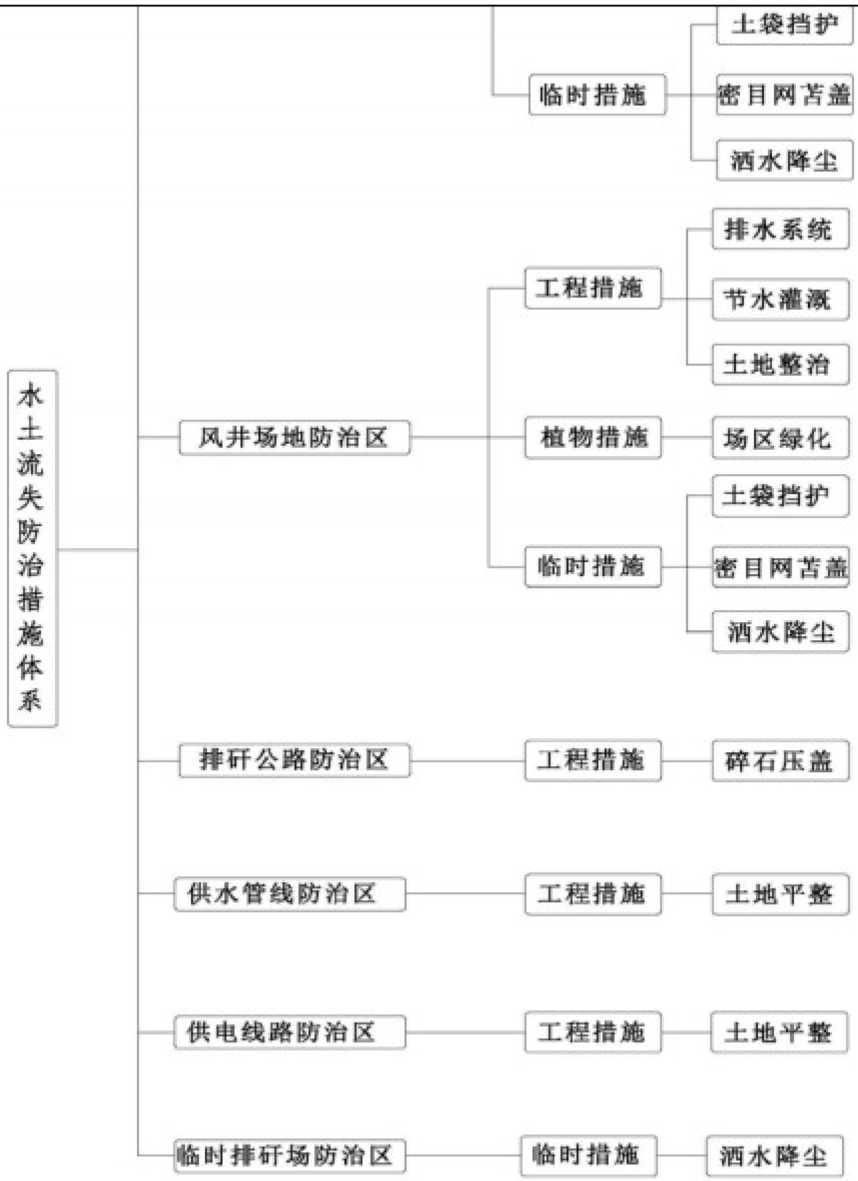
[illegible] **11-3-1** [illegible]

| [illegible] | [illegible] | | | [illegible] | [illegible] | [illegible] | [illegible] | | |
|---|---|---|---|---|---|---|---|---|---|
| | [illegible] | [illegible] | [illegible] | | | | [illegible] | [illegible] | [illegible] |
| [illegible](%) | * | 95 | >95 | 0 | 0 | 0 | 0 | 95 | >95 |
| [illegible](%) | * | 85 | >85 | -6 | 0 | 0 | 0 | 79 | >79 |
| [illegible] | 0.5 | 0.7 | 0.5 | 0 | 0 | 0 | 0.5 | 0.7 | 0.5 |
| [illegible](%) | 90 | 95 | 95 | 0 | 0 | 0 | 90 | 95 | 95 |
| [illegible](%) | * | - | - | - | - | - | - | - | - |
| [illegible](%) | * | - | - | - | - | - | - | - | - |

## 11.3.2 [illegible]

[illegible],[illegible]

[illegible],[illegible],[illegible],[illegible],[illegible],[illegible];[illegible];[illegible] 11.3-1[illegible]


水土流失防治措施体系
临时措施
土袋挡护
密目网苫盖
洒水降尘
风井场地防治区
工程措施
排水系统
节水灌溉
土地整治
植物措施
场区绿化
临时措施
土袋挡护
密目网苫盖
洒水降尘
排矸公路防治区
工程措施
碎石压盖
供水管线防治区
工程措施
土地平整
供电线路防治区
工程措施
土地平整
临时排矸场防治区
临时措施
洒水降尘

**[illegible] 11.3-1 [illegible]**

## 11.3.3 [illegible]

[illegible]

[illegible],[illegible], [illegible], [illegible] [illegible]

[illegible]:[illegible],[illegible]

[illegible]:[illegible],[illegible],[illegible]

[illegible]:[illegible]

[illegible]:[illegible],[illegible],[illegible]

[illegible]:[illegible],[illegible],[illegible]

[illegible]:[illegible]

[illegible]:[illegible]

[illegible]11.3-2[illegible]

[illegible] **11-3-2** [illegible]

| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|---|---|---|---|---|
| — | [illegible] | | | | | | | | |
| 1 | [illegible] | | | | | | | | |
| (1) | [illegible] | | | | | | | | |
| | [illegible] | m3 | 2620.00 | 353.70 | | | | | 2973.70 |
| | [illegible] | m3 | 210.00 | | | | | | 210.00 |
| | [illegible] | m3 | 1320.00 | 178.20 | | | | | 1498.20 |
| (2) | [illegible] | | | | | | | | |
| | [illegible] | m3 | 345.00 | | | | | | 345.00 |
| | [illegible] | m3 | 210.00 | | | | | | 210.00 |
| 2 | [illegible] | | | | | | | | |
| | [illegible] | m3 | 2582.00 | 775.00 | | | | | 3357.00 |
| | [illegible] | [illegible] | 1 | 1 | | | | | 2 |
| | [illegible] | [illegible] | 9 | 2 | | | | | 11 |
| | PVC [illegible]Φ140 | m | 2703.01 | | | | | | 2703.01 |
| | PVC [illegible]Φ63 | m | 4956.81 | | | | | | 4956.81 |
| | PVC [illegible]Φ110 | m | | 178.03 | | | | | 178.03 |
| | PVC [illegible]Φ40 | m | | 431.68 | | | | | 431.68 |
| | PE [illegible]Φ17 | m | 7732.62 | 673.42 | | | | | 8406.04 |

[illegible]

| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|---|---|---|---|---|
| | [illegible]Φ16 | m | 1050.00 | 142.50 | | | | | 1192.50 |
| 3 | [illegible] | | | | | | | | |
| | [illegible] | m3 | 4338.00 | | 1155.00 | | | | 5493.00 |
| 4 | [illegible] | hm2 | | | | 28.50 | 2.00 | | 30.50 |
| 5 | [illegible] | hm2 | 2.60 | | | | | | 2.60 |
| [illegible] | [illegible] | | | | | | | | |
| 1 | [illegible] | | | | | | | | |
| (1) | [illegible] | | | | | | | | |
| | [illegible] | [illegible] | 600 | 95 | | | | | 695 |
| | [illegible] | [illegible] | 300 | 95 | | | | | 395 |
| | [illegible] | [illegible] | 150 | | | | | | 150 |
| | [illegible] | [illegible] | 150 | | | | | | 150 |
| | [illegible]60×60cm | [illegible] | 600 | 95 | | | | | 695 |
| (2) | [illegible] | | | | | | | | |
| | [illegible] | [illegible] | 100 | | | | | | 100 |
| | [illegible] | [illegible] | 100 | | | | | | 100 |
| | [illegible]40×40cm | [illegible] | 100 | | | | | | 100 |
| [illegible] | [illegible] | | | | | | | | |
| 1 | [illegible] | | | | | | | | |
| | [illegible] | m3 | 1024.00 | 256.00 | | | | | 1280.00 |
| | [illegible] | m2 | 6731.64 | 1682.91 | | | | | 8414.55 |
| 2 | [illegible] | | | | | | | | |
| | [illegible] | m3 | 2737.50 | 1368.75 | | | | 1768.75 | 5875.00 |

## 11.3.4 [illegible]

[illegible]

[illegible] 4 [illegible] 11-3-3[illegible]

[illegible] **11-3-3** [illegible]

| [illegible] | [illegible] | [illegible] |
|---|---|---|
| 1 | [illegible] | 1 |
| 2 | [illegible] | 1 |

[illegible]

**[illegible]:** [illegible] 254 **0991_4182190** **3857017([illegible])**

[illegible]

| [illegible] | [illegible] | [illegible] |
|---|---|---|
| 3 | [illegible] | 1 |
| 4 | [illegible] | 1 |
| 6 | [illegible] | 4 |

[illegible] 10 [illegible] 1 [illegible];[illegible]([illegible])[illegible] 10 [illegible] 1 [illegible]; [illegible] 1 [illegible] 1 [illegible]; [illegible] 3 [illegible] 1 [illegible];[illegible] 1 [illegible], [illegible] 11-3-4[illegible]

[illegible] **11-3-4** [illegible]

| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|
| [illegible] 1 [illegible] | [illegible],[illegible] | [illegible] | [illegible] (2018 [illegible]) [illegible] | [illegible] 10 [illegible] 1 [illegible]; [illegible]([illegible]) [illegible] 10 [illegible] 1 [illegible]; [illegible] 1 [illegible] 1 [illegible]; [illegible] 3 [illegible] 1 [illegible];[illegible] 1 [illegible], [illegible] |
| [illegible] 1 [illegible] | [illegible] | [illegible] | | |
| [illegible] 1 [illegible] | [illegible] | [illegible] | | |

### 11.3.5 [illegible]

[illegible] 784.39 [illegible], [illegible] 201.49 [illegible], [illegible]

[illegible] 9.33 [illegible], [illegible] 58.35 [illegible], [illegible] 409.70 [illegible]([illegible] 105.00 [illegible],[illegible] 109.32 [illegible]),[illegible] 64.79 [illegible],[illegible] 40.73 [illegible]

[illegible], [illegible], [illegible], [illegible] [illegible],[illegible]

[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

[illegible],[illegible],[illegible],[illegible]

# 12.[illegible]

## 12.1 [illegible]

[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible];[illegible];[illegible];[illegible];[illegible]

[illegible],[illegible],[illegible]

[illegible] (HJ/T169_2004)[illegible]

## 12.2 [illegible]

### 12.2.1 [illegible]

[illegible]

(1) [illegible]: [illegible];

(2)[illegible]:[illegible];

(3) [illegible]: [illegible];

(4)[illegible]:[illegible],[illegible],[illegible],[illegible];

(5)[illegible]

## 12.2.2 □□□□□□□□□

(1)□□□□□□□□□□

□□□□□□□□□□□□300m □, □□□□□□□□□, □□□□,□□□□ 5hm$^2$,□□□□□□□□,□□ 20km □□□□□□□□□□□□

□□□□□□□□□□□,□□□□□□□□□□□,□□□□□□□□,□□□□□□□□,□□I□□□□□□□□□□□□□□□□□□□□□□,□□□□□□□□□□□□,□□□□□□

(2)□□□□□□□□□□

□□□□□□□□□□□□□□,□□□□□ 20km □□□□□□□□□□□□□,□□□□□□□□□□□□,□□□□□□□□□□□□□□□□,□□□□□□,□□□□□□□□□

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## 12.2.3 □□□□□□□□

□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

(1) □□□□□□□□□□□; □□□□□□, □□□□□□□□□□□□□□□□□;

(2) □□□□□□□□□□□□□□, □□□□□□□□□□□□□□□□□V□,□ 100 □□□□□□□□

(3)□□□□□□□ 50m □□□□□□□,□□□□□□□□□□□□□

(4)□□□□□□□□□□□□□□□□□□□□□;

(5) □□□□□□□□□□□□□, □□□□□□□□□□□, □□□□□□□□□□□□□□□□□□□□□□□□□□□□□,□□□□□□□□

(6) □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

(7) [illegible], [illegible], [illegible], [illegible]

# 12.3 [illegible]

[illegible], [illegible], [illegible]

## 12.3.1 [illegible]

[illegible]:

(1) [illegible], [illegible], [illegible], [illegible], [illegible]

(2) [illegible], [illegible], [illegible]; [illegible], [illegible], [illegible]

(3) [illegible], [illegible], [illegible], [illegible]

## 12.3.2 [illegible]

[illegible], [illegible]

[illegible], [illegible], [illegible]

### 12.3.2.1 [illegible]

[illegible]

[illegible], [illegible], [illegible], [illegible]

### 12.3.2.2 [illegible]

[illegible], [illegible], [illegible]

[illegible];[illegible],[illegible];[illegible];[illegible],[illegible]

### 12.3.2.3 [illegible]

[illegible],[illegible],[illegible]

[illegible],[illegible],[illegible],[illegible],[illegible]

### 12.3.2.4 [illegible]

[illegible],[illegible]

[illegible],[illegible],[illegible],[illegible]

### 12.3.2.5 [illegible]

[illegible],[illegible],[illegible], [illegible],[illegible]

## 12.3.3 [illegible]

### 12.3.3.1 [illegible]

[illegible],[illegible],[illegible],[illegible]

### 12.3.3.2 [illegible]

[illegible],[illegible],[illegible]“[illegible]”,[illegible], [illegible]

[illegible],[illegible]

### 12.3.3.3 [illegible]

[illegible],[illegible],[illegible]:[illegible];[illegible];[illegible];[illegible];[illegible]

# 13 [illegible]

## 13.1 [illegible]

### 13.1.1 [illegible]

[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]:

[illegible]:[illegible],[illegible],[illegible],[illegible],[illegible],[illegible] 3 [illegible],[illegible],[illegible]

[illegible]:[illegible],[illegible],[illegible],[illegible],[illegible] 7 [illegible],[illegible],[illegible],[illegible] 4 [illegible],[illegible],[illegible],[illegible]

[illegible]:[illegible],[illegible],[illegible] 2 [illegible],[illegible]([illegible])[illegible], [illegible],[illegible] 3 [illegible]

### 13.1.2 [illegible]

[illegible]:[illegible]

[illegible]:

(1)[illegible],[illegible];

(2)[illegible],[illegible];

(3)[illegible],[illegible],[illegible],[illegible];

(4)[illegible],[illegible];

(5)[illegible],[illegible],[illegible]

[illegible]:

(1)[illegible],[illegible],[illegible];

(2)[illegible],[illegible],[illegible],[illegible],[illegible],[illegible];

(3)[illegible](2×660MW)[illegible],[illegible],[illegible]

(4)[illegible],[illegible];

(5)[illegible],[illegible],[illegible]

(6) [illegible], [illegible], [illegible],[illegible]

[illegible]:[illegible]

(1)[illegible],[illegible] 3 [illegible] 5 [illegible],[illegible],[illegible],[illegible];

(2)[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible];

(3) [illegible], [illegible], [illegible],[illegible],[illegible],[illegible];

(4)[illegible] 3 [illegible] 5 [illegible],[illegible] 7 [illegible],[illegible] 7 [illegible],[illegible];

(5)[illegible](2×660MW)[illegible],[illegible],[illegible]

(6)[illegible],[illegible],[illegible]

[illegible]:

(1) [illegible],[illegible]

[illegible]:

[illegible]:[illegible]

(1)[illegible],[illegible],[illegible];
(2) [illegible], [illegible], [illegible], [illegible], [illegible],[illegible];
(3)[illegible],[illegible],[illegible],[illegible]

[illegible]:

(1) [illegible], [illegible], [illegible], [illegible],[illegible];

(2) [illegible],[illegible],[illegible],[illegible],[illegible],[illegible];

(3)[illegible],[illegible],[illegible],[illegible]

(4)[illegible],[illegible],[illegible],[illegible] l[illegible],[illegible]

(5) [illegible], [illegible] 125Km, [illegible], [illegible]
[illegible] 13-1-1[illegible]

## □ 13-1-1　□□□□□□□□□□□□ (□□□□)

| | □　□ | | | □□□<br>(□□□□□) | | □□Ⅲ<br>(□□□□) | | □□Ⅰ<br>(□□□□) | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | □□□ | □□(□□) | □□□ | □□(□□) | □□□ | □□(□□) |
| 1 | □□□□ | | | □□□□□□□,□□□□□□□, | | □□□□□□□, □□□□□□□, | | □□□□□□□,□□□□□□□ | |
| 2 | □□ | □□ | m | +546 | | +629 | | +562 | |
| | | □□ | m | +328 | | +85 | | +25 | |
| 3 | □□□□□□□□ | | □t | 6616 | | 10423 | | 8338 | |
| 4 | | □□ | m | 4362 | 11636 | 3015 | 11862 | 1517 | 10579 |
| | | □□□□ □ □□ | m | 510 | 714 | 1860 | 2604 | 2070 | 2898 |
| | | □　□ | m | 4872 | 12377 | 4875 | 14466 | 3587 | 13477 |
| 5 | □□□□□□ | □□ | □ | □□□ | 2055 | □□□ | 2300 | □□ | 6865 |
| | | □□ | | | 217 | | 217 | | 2300 |
| 6 | □□□□□□ | □□ | □ | □□□ | | □□ | 6041 | □□ | 6041 |
| | | □□ | | | | | 2300 | | 2300 |
| 7 | □□□□ | | ha | 32+2.5 | 2070 | 24+14 | 2280 | 30 | 1800 |
| 8 | □□□□ | | km | 15 | 4125 | 8 | 2200 | 7.5 | 2062 |
| 9 | □□□□□□□ | | km | 9 | 103 | 8 | 92 | 7.5 | 86 |
| 10 | □□□□ | | km | 7 | 560 | 4.5 | 360 | 7 | 560 |
| | □□□□ | | □ | 1 | 2618 | 2 | 3160 | 1 | 2618 |
| 11 | □(□)□□ | | □$^3$m | 30.2(9.8) | 245 | 44.4(16.6) | 415 | 22.6(7.4) | 185 |
| 12 | □□□□□□□□ | | | 23920<br>(±0) | | 33831<br>(+9911) | | 38294<br>(+14274) | |
| 13 | □□□□□ | | □t | ±0 | | +3807 | | +1722 | |
| 14 | □□□□□□ | | | □□□□□□□□ | | □□□□□□□□ | | □□□□□□□□ | |
| 15 | □□□□□□ | | | □□ | | □□ | | □□ | |

[illegible]

**[illegible]:** **[illegible]** 265 **0991_4182190** **3857017([illegible])**

**[illegible] 13-1-1 [illegible] ([illegible])**

| | [illegible] | | | [illegible]<br>([illegible]) | | [illegible]Ⅲ<br>([illegible]) | | [illegible] I<br>([illegible]) | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | [illegible] | [illegible]([illegible]) | [illegible] | [illegible]([illegible]) | [illegible] | [illegible]([illegible]) |
| 16 | [illegible] | [illegible] | [illegible] | 34 | | 46 | | 41 | |
| | | [illegible] | [illegible] | 58 | | 68 | | 63 | |
| 17 | [illegible] | | | [illegible],[illegible] | | [illegible],[illegible] | | [illegible], [illegible] | |
| 18 | [illegible] | | | [illegible], [illegible],[illegible],[illegible], [illegible] | | [illegible],[illegible],[illegible] | | [illegible],[illegible] | |
| 19 | [illegible] | | | [illegible] | | [illegible],[illegible],[illegible],[illegible],[illegible], [illegible] | | [illegible], [illegible], [illegible],[illegible], [illegible], [illegible], [illegible] | |

[illegible] 13-1-41 [illegible], [illegible], [illegible],[illegible] 7 [illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

## 13.1.3 [illegible]

(1) [illegible]

[illegible],[illegible],[illegible] (GB3095-2012)[illegible],[illegible]

[illegible],[illegible],[illegible]

[illegible] 125~80℃[illegible],[illegible]

[illegible],[illegible] 98%,[illegible],[illegible] 80mg/m$^3$,[illegible] (GB20426-2006)[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

(2)[illegible]

[illegible] (GB/T3838-2002)[illegible]Ⅲ[illegible],[illegible]([illegible])[illegible],[illegible], [illegible],[illegible]

[illegible],[illegible],[illegible], [illegible], [illegible], [illegible],[illegible]

(3)[illegible]

[illegible]:[illegible] (GB3096-2008) 2 [illegible],[illegible]

[illegible],[illegible],[illegible](GB12348__2008)[illegible] 2 [illegible]

(4)[illegible]

[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

[illegible],[illegible],[illegible]

## 13.2 [illegible]

### 13.2.1 [illegible]

[illegible] 300 [illegible], [illegible],[illegible],[illegible] 5hm$^2$ ,[illegible] 3~5 [illegible],[illegible],[illegible] 20km [illegible]

[illegible] 2015 [illegible] 3 [illegible] 1 [illegible] (2014 [illegible]) [illegible]: “[illegible]([illegible]) [illegible], [illegible], [illegible],[illegible], [illegible] 3 [illegible], [illegible]”[illegible] 300 [illegible],[illegible],[illegible],[illegible] 5hm$^2$ ,[illegible] 3~5 [illegible], 3 [illegible],[illegible]

[illegible],[illegible] 20km [illegible] (GB18599-2001)[illegible]

### 13.2.2 [illegible]

[illegible] 10 [illegible],[illegible]—[illegible] (GB5085.3-2007)) [illegible]-[illegible] (GB 5085. 1-1996)[illegible],[illegible],[illegible] (GB8978—1996)[illegible],[illegible] pH [illegible] 6~9 [illegible],[illegible]I[illegible]I[illegible]:

(1)[illegible]500m [illegible],[illegible];

(2)[illegible],[illegible]

(3)[illegible],[illegible],[illegible]

(4)[illegible]

(5) [illegible], [illegible]

[illegible], [illegible], [illegible] (GB20426-2006)[illegible]

[illegible], [illegible] (GB18599-2001) [illegible], [illegible] (GB20426-2006)[illegible],[illegible],[illegible]

## 13.3 [illegible]

[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

# 14.[illegible]

[illegible],[illegible],[illegible],[illegible],[illegible],[illegible], [illegible], [illegible]

[illegible]

## 14.1 [illegible]

### 14.1.1 [illegible]

[illegible](GB5751~2009), [illegible],[illegible]+[illegible], [illegible] (Cdaf) [illegible],[illegible] 27.24~84.84%[illegible], [illegible] 74.11~ 77.93,[illegible] 76. 10%; [illegible]+[illegible] (O+S) daf [illegible] 15.02~23.36%[illegible], [illegible] 15.02~20.28%,[illegible] 18.27%[illegible] (Hdaf)[illegible] 2.67~7.86%[illegible],[illegible] 4.54~5.47% , [illegible] 4.77% , ; [illegible] (Ndaf)[illegible] 0.65~4.25%[illegible], [illegible] 0.75~ 1.69%,[illegible] 1.22%;[illegible] (Qgr.d) [illegible] 21.50~25.97MJ/kg ,[illegible] 24.34MJ/kg; [illegible](Qnet.d) [illegible] 23.66~26.37MJ/kg [illegible],[illegible] 25.45MJ/kg;

[illegible] (GRI)[illegible] 0, [illegible]~[illegible] 41 [illegible],[illegible] 31 [illegible],[illegible]

[illegible] (Qnet,d) 21.50~25.97MJ/kg,[illegible] 17.77%,[illegible] 0.44%,[illegible],[illegible]

## 14.1.2 [illegible]

### 14.1.2.1 [illegible]

(1)[illegible]

[illegible]; [illegible] 12.0Mt, [illegible] ([illegible] 1 [illegible])[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

(2)[illegible]

[illegible] 12.0Mt/a,[illegible],[illegible];[illegible]

[illegible],[illegible],[illegible],[illegible];[illegible],[illegible],[illegible],[illegible],[illegible]

### 14.1.2.2 [illegible]

[illegible] (2Φ30m), [illegible],[illegible],[illegible],[illegible],[illegible]

[illegible], [illegible], [illegible]; [illegible],[illegible];[illegible],[illegible],[illegible]

### 14.1.3 [illegible]

[illegible] 2×660MW [illegible] 2014 [illegible] 8 [illegible], [illegible],[illegible],[illegible] 125~80℃[illegible]

[illegible],[illegible](Qnet,d)21.50 ~ 25.97MJ/kg,[illegible] 17.77%,[illegible] 0.44%,[illegible],[illegible]

## 14.2 [illegible]

### 14.2.1 [illegible]

[illegible],[illegible],[illegible] 7 [illegible],[illegible],[illegible],[illegible] 4 [illegible],[illegible],[illegible],[illegible],[illegible] 7 [illegible], [illegible],[illegible],[illegible],

[illegible],[illegible],[illegible],[illegible],[illegible]

### 14.2.2 [illegible]

[illegible]([illegible]),[illegible],[illegible],[illegible] 3[illegible]5[illegible]6 [illegible], 7 [illegible]

10 [illegible] (H=6.23m)[illegible]15 [illegible] (H=7.05m)[illegible]25 [illegible] (H=8.29m) [illegible], [illegible];[illegible] 1.78~3.62m [illegible],[illegible]

[illegible],[illegible]

[illegible],[illegible] 1984 [illegible], [illegible],[illegible],[illegible],[illegible],[illegible] 4.50~7.00Mt [illegible] 6.0Mt/a [illegible],[illegible],[illegible],[illegible] 4.0Mt/a[illegible]

[illegible];[illegible],[illegible],[illegible]; [illegible], [illegible],[illegible],[illegible],[illegible];[illegible],[illegible],[illegible],[illegible];[illegible],[illegible],[illegible];[illegible], [illegible]; [illegible], [illegible],[illegible]

[illegible],[illegible]

## 14.2.3 [illegible]

[illegible],[illegible],[illegible],[illegible]

[illegible] 95%, [illegible] 95%,[illegible]([illegible])[illegible],[illegible],[illegible],[illegible],[illegible];

[illegible],[illegible]

[illegible],[illegible],[illegible]

## 14.3 [illegible]

### 14.3.1 [illegible]

#### 14.3.1.1 [illegible]

[illegible] 103.25m$^3$/h,[illegible] 2478m$^3$/d,[illegible] 5%[illegible] 2354. 1m$^3$/d ,[illegible], [illegible]“ [illegible]+[illegible]+[illegible]”[illegible], [illegible],[illegible] (GB50383-2006) [illegible], [illegible] (GB/T 18920__2002)[illegible],[illegible],[illegible] 100% ,[illegible]

#### 14.3.1.2 [illegible]

[illegible] 514. 12m$^3$/d,[illegible],[illegible] 1 [illegible],[illegible] 35m$^3$/d,[illegible],[illegible],[illegible](GB/T 18920__2002) [illegible], [illegible], [illegible],[illegible],[illegible],[illegible],[illegible] 100%[illegible]

### 14.3.2 [illegible]

[illegible] 40 [illegible] m$^3$ ,[illegible] 30 [illegible] m3,[illegible] 10 [illegible] m3,[illegible] 20 [illegible] m3[illegible] 40.2km, [illegible] 65km,[illegible],[illegible],[illegible],[illegible] 3 [illegible],[illegible]

[illegible] 2.6 [illegible] t/a,[illegible] 1.5 [illegible] $m^3$/a[illegible],[illegible],[illegible] 109 [illegible] t/a , [illegible], [illegible],[illegible],[illegible]

## 14.4 [illegible]

### 14.4.1 [illegible]

[illegible],[illegible]

[illegible] (2Φ30m)[illegible] (3Φ30m)[illegible] (1Φ12m)[illegible] (4Φ15m)[illegible],[illegible] (1Φ80m)[illegible],[illegible],[illegible];[illegible],[illegible],[illegible],[illegible] 33000 [illegible]

[illegible],[illegible],[illegible],[illegible] 80mg/$m^3$ ,[illegible] “ [illegible] 98% [illegible] 80mg/$m^3$”[illegible],[illegible],[illegible];[illegible];[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible] (GB/20426-2006)[illegible]

(2)[illegible]

[illegible],[illegible]“ [illegible]+[illegible]+[illegible]”[illegible],[illegible],[illegible] (GB50383-2006)[illegible],[illegible]

[illegible] (GB/T 18920__2002) [illegible], [illegible] __ [illegible] (GB/T18920-2002)[illegible]

(3)[illegible] (GB12348__2008)[illegible] 3 [illegible] (GB12532-2011)[illegible]

(4 )[illegible] (GB18599—2001)[illegible](GB/20426 __2006)[illegible]

## 14.4.2 [illegible]

[illegible],[illegible]:

(1)[illegible],[illegible]

(2)[illegible],[illegible];

(3)[illegible],[illegible];

(4)[illegible],[illegible],[illegible];

(5)[illegible]

[illegible],[illegible],[illegible]

[illegible],[illegible],[illegible],[illegible] 80%[illegible]

[illegible],[illegible],[illegible],[illegible] 95%[illegible]

[illegible],[illegible],[illegible]

# 14.5 [illegible]

## 14.5.1 [illegible]

### 14.5.1.1 [illegible]

(1) [illegible], [illegible], [illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

(2)[illegible],[illegible],[illegible] 400m[illegible],[illegible] 18 [illegible],[illegible],[illegible]

(3)[illegible],[illegible] 3 [illegible]5 [illegible]6 [illegible] 7 [illegible],[illegible],[illegible] 3 [illegible],[illegible] 3 [illegible]5 [illegible]6 [illegible], [illegible] 5 [illegible],[illegible] 5 [illegible]6 [illegible] 7 [illegible], [illegible] 7 [illegible] 10 [illegible]~16 [illegible] 6 [illegible],[illegible], [illegible], [illegible] 10 [illegible]12 [illegible] 15 [illegible]18~29 [illegible] 8 [illegible],[illegible],[illegible],[illegible] 19 [illegible]22 [illegible] 25 [illegible]

(4)[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

(5) [illegible] 4 [illegible], [illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

(6) [illegible], [illegible], [illegible], [illegible]

### 14.5.1.2 [illegible]

(1) [illegible], [illegible], [illegible],[illegible],[illegible]

(2) 3 [illegible]5 [illegible] 6 [illegible], [illegible], 7 [illegible],[illegible],[illegible],[illegible],[illegible]

(3)[illegible] 7LS__5 [illegible],[illegible],[illegible],[illegible],[illegible]

(4)[illegible] 5 [illegible] 3 [illegible],[illegible],[illegible],[illegible] 3:8[illegible]

(5) [illegible], [illegible], [illegible]

(6)[illegible],[illegible]

### 14.5.1.3 [illegible]

(1) [illegible], [illegible]

[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

(2) [illegible]

[illegible],[illegible],[illegible],[illegible],[illegible]

## 14.5.2 [illegible]

(1) [illegible], [illegible],[illegible]

(2) [illegible], [illegible], [illegible], [illegible],[illegible], [illegible], [illegible] FBCDZ__10__No36 [illegible] 76%[illegible] 85%[illegible],[illegible]:[illegible] 0.405kW·h/Mm3·Pa ,[illegible] 0.362kW·h/Mm3·Pa , [illegible]0.44kW·h/$10^{6}$·m3·Pa [illegible]

(3)[illegible],[illegible],[illegible] 70%,[illegible],[illegible], [illegible],[illegible],[illegible],[illegible]

(4) [illegible] MH300__2SA [illegible] 6 [illegible], 5 [illegible],[illegible],[illegible],[illegible] 5.77kW/ m3·min-1,[illegible] 5.9 kW/ m3·min-1 [illegible], [illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible] 0. 14Pa,[illegible]

## 14.5.3 [illegible]

[illegible] 110kV [illegible], [illegible],[illegible] 110/10kV [illegible] 110kV [illegible], [illegible],[illegible] LGJ__240 [illegible] 110/10kV [illegible],[illegible] 56km , [illegible] 4.34%[illegible] 220kV [illegible] 110kV [illegible], [illegible], [illegible] LGJ__240 [illegible] 110/10kV [illegible],[illegible] 48km,[illegible] 3.72%[illegible]

[illegible], [illegible]; [illegible],[illegible] SFZ11__31500/110 [illegible] 110±8×1.25%/10.5kV [illegible]31500kVA [illegible]

[illegible],[illegible],[illegible]57%,[illegible]

## 14.5.4 [illegible]

(1)[illegible]

[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible] 0.40,[illegible] 0.30[illegible]

(2)[illegible]

[illegible]: [illegible], [illegible]

[illegible]: [illegible] 25%[illegible],[illegible]: [illegible] 370;[illegible] 240[illegible],[illegible] A [illegible]

[illegible]: [illegible] 160mm [illegible], [illegible]<0.60[illegible]=[illegible]

(3)[illegible]

[illegible],[illegible]

[illegible] 50%~80%,[illegible],[illegible],[illegible],[illegible]“[illegible]”[illegible],[illegible],[illegible],[illegible]

[illegible]([illegible])[illegible] 0.70, [illegible]: [illegible] 0.4;[illegible] 0.25;[illegible] 0.3 ;[illegible] 0.05[illegible] 20%[illegible]

## 14.6 [illegible]

[illegible]-[illegible] (HJ446-2008)[illegible],[illegible]

### 14.6.1 [illegible]

[illegible] HJ446-2008[illegible]-[illegible]

#### 14.6.1.1 [illegible]

[illegible] 14-6-1[illegible]

[illegible] **14-6-1** [illegible]

| [illegible] | | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|---|
| [illegible] | | | | | |
| ([illegible])[illegible] | | | | | |
| 1.[illegible] | | [illegible],[illegible] | | | [illegible] ([illegible]) |
| 2.[illegible] | [illegible] (%) | ≥95 | ≥90 | ≥70 | ([illegible]) |
| | [illegible] (%) | ≥95 | ≥90 | ≥70 | ([illegible]) |
| | [illegible] | [illegible]([illegible])[illegible] | [illegible],[illegible] | [illegible] | [illegible] ([illegible]) |
| | | [illegible] | [illegible] | [illegible] | [illegible] |

[illegible]

| [illegible] | | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|---|
| [illegible] | | | | | |
| ([illegible])[illegible] | | | | | |
| | [illegible] | [illegible],[illegible];[illegible] | [illegible],[illegible],[illegible], [illegible] | [illegible],[illegible],[illegible],[illegible] | [illegible]([illegible]) |
| 3.[illegible] | [illegible] | [illegible] GB50197 [illegible],[illegible],[illegible],[illegible]: [illegible];<br>[illegible] | | | ([illegible]) [illegible] |
| 4.[illegible] | [illegible] | [illegible] | | [illegible] | [illegible]([illegible]) |
| | [illegible] | [illegible],[illegible],[illegible] | [illegible],[illegible],[illegible],[illegible] | [illegible], [illegible] | [illegible], [illegible]([illegible]) |
| 5.[illegible] (%) | | 100 | | ≥80 | 100<br>([illegible]) |

[illegible], [illegible], [illegible], [illegible],[illegible]

## 14.6.1.2 [illegible]

[illegible] 14-6-2[illegible]

**[illegible] 14-6-2 [illegible]**

| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|
| ([illegible])[illegible] | | | | |
| 1.[illegible] | [illegible],[illegible] | | | [illegible]([illegible]) |
| 2.[illegible] [illegible] | [illegible] | | [illegible] | [illegible]([illegible]) |
| 2.[illegible] [illegible] | [illegible],[illegible] | [illegible],[illegible] | [illegible] | [illegible]([illegible]) |
| 2.[illegible] | [illegible] | [illegible] | [illegible] | [illegible]([illegible]) |
| 2.[illegible] [illegible] | [illegible],[illegible] | | | [illegible] |
| 2.[illegible] [illegible] | [illegible], [illegible] | [illegible] | [illegible] | ([illegible]) |
| 3.[illegible] | [illegible], [illegible], [illegible] | | [illegible] | ([illegible]) |
| 4.[illegible] | [illegible], [illegible], [illegible] | | [illegible],[illegible],[illegible] | ([illegible]) |
| 5.[illegible] | [illegible], [illegible], [illegible], [illegible], [illegible] [illegible]$<0.10m^3$,[illegible],[illegible] | | [illegible],[illegible],[illegible], [illegible],[illegible] [illegible] <0.15m3, [illegible] [illegible],[illegible] | [illegible] 0.091 $m^3$ ([illegible]) |

[illegible],[illegible],[illegible],[illegible]

## 14.6.2 [illegible]

[illegible] HJ446-2008[illegible]-[illegible],[illegible] 14-6-3[illegible]

[illegible] **14-6-3** [illegible]

| [illegible] | | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|---|
| [illegible] | | | | | |
| 1.[illegible]/ (kWh/t) | | ≤15 | ≤20 | ≤25 | 10.6kw·h/t ([illegible]) |
| 2.[illegible]/ (kg/t) | | ≤0.5 | ≤0.8 | ≤1.0 | / |
| 3.[illegible]/ (m3/t) | [illegible]([illegible]) | ≤0.1 | ≤0.2 | ≤0.3 | 0.18 ([illegible]) |
| | [illegible]([illegible]) | ≤0.2 | ≤0.3 | ≤0.4 | / |
| 4.[illegible]/ (m3/[illegible] t) | [illegible] | ≤5 | ≤10 | ≤15 | ([illegible]) |
| | [illegible] | ≤10 | ≤25 | ≤30 | |
| 5.[illegible]/ (m3/t) | | ≤0.1 | | ≤0.15 | 0.05m3 ([illegible]) |
| 6.[illegible]/ (kWh/t) | [illegible] | ≤5 | ≤6 | ≤8 | |
| | [illegible] | ≤7 | ≤8 | ≤10 | ([illegible]) |
| 7.[illegible]/ (kg/t) | | ≤1 | ≤1.5 | ≤1.8 | / |
| 8.[illegible]/ (kg/t) | | ≤1.5 | ≤2.0 | ≤3 | / |
| 9.[illegible]/% | [illegible] | ≥77 | | ≥75 | 76 ([illegible]) |
| | [illegible] | ≥82 | | ≥80 | 84 ([illegible]) |
| | [illegible] | ≥87 | | ≥85 | / |
| 10.[illegible]/% | [illegible] | ≥95 | | ≥93 | 93 ([illegible]) |
| | [illegible] | ≥97 | | ≥95 | 95 ([illegible]) |
| | [illegible] | ≥99 | | ≥97 | / |
| 11.[illegible]/% | | [illegible] ≥97 [illegible]<br>[illegible] ≥95<br>[illegible] ≥93 | | | [illegible] ([illegible]) |
| 12.[illegible] hm2/Mt | [illegible] | [illegible] 0.1 | [illegible] 0.12 | | 2.5 ([illegible]) |
| | [illegible] | [illegible] 0.3 | [illegible] 0.5 | | / |

[illegible],[illegible],[illegible]

□□,□□□□□□□□□□□□□□□□□□□□,□□□□□□□□□□

## 14.6.3 □□□□□□□□

□□□□□□□□□□□□□□□□□-□□□□□□□ (HJ446-2008)□□□□□□□□□□□□,□□ 14-6-4□

**□ 14-6-4** □□□□□□□□

| □□□□□□□□□ | | □□ | □□ | □□ | □□□ |
|---|---|---|---|---|---|
| □□□□□□ | | | | | |
| 1.□□□□□ | □□% | ≤0.5 | ≤0.8 | ≤1 | / |
| | □□% | ≤8 | ≤10 | ≤12 | / |
| 2.□□□□ | □□% | ≤0.5 | ≤1.5 | ≤2.0 | 0.44 (□□) |
| | □□% | ≤12 | ≤15 | ≤22 | 17.77 (□□) |

□□□□□□,□□□□□□□□□□□□□□□□□□□□□□□□□□,□□□□□□□□□,□□□□□□□□,□□□□,□□□□□□□□□□,□□□□□□□

## 14.6.4 □□□□□□□□□□□

□□□□□□□□□□□□□□□□□-□□□□□□□ (HJ446-2008)□□□□□□□□□□□□□□□□,□□ 14-6-5□

**□ 14-6-5** □□□□□□□□□□□

| □□□□□□□□□ | □□ | □□ | □□ | □□□ |
|---|---|---|---|---|
| □□□□□□□□□□(□□□□□) | | | | |
| 1.□□□□□□□□□□□□(g/t) | ≤100 | ≤200 | ≤300 | 89.14 (□□) |
| 2.□□□□□□□□□□(g/t) | ≤6 | ≤8 | ≤10 | 0.338 (□□) |
| 3.□□□□□□□□□□□□(g/t) | ≤25 | ≤30 | ≤40 | / |
| 4.□□□□□□□□□□(g/t) | ≤1.5 | ≤2.0 | ≤3.0 | / |
| 5.□□□□□□□□(t/t) | ≤0.03 | ≤0.05 | ≤0.1 | 0.001 (□□) |
| 6.□□□□□□□□□□□□□□□□(mg/m3) | ≤4000 | | | □□ |
| 7.□□□□□□□□□□□□□□□□□□□□□□□□□□□□ (mg/m3) | ≤4000 | | | □□ |

□□□□□□,□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□,□□□□□□□□□□□□□□□

## 14.6.5 [illegible]

[illegible] HJ446-2008[illegible]-[illegible],[illegible] 14-6-6[illegible]

**[illegible] 14-6-6** [illegible]

| [illegible] | | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|---|
| [illegible] | | | | | |
| 1.[illegible]/% | | ≥85 | ≥70 | ≥60 | 0 ([illegible]) |
| 2.[illegible]/% | | ≥80 | ≥75 | ≥70 | 100%[illegible] |
| 3.[illegible]/% ① | [illegible] | 100 | ≥95 | ≥90 | / |
| | [illegible] | ≥90 | ≥80 | ≥70 | / |
| | [illegible]([illegible]) | ≥80<br>(100) | ≥75<br>(≥80) | ≥70<br>(≥80) | 100 |
| | [illegible] | ≥70 | | | / |
| 4.[illegible]/% | | 100 | ≥80 | ≥70 | / |

[illegible]:① [illegible] MT/T5014, [illegible]([illegible])<[illegible] 60%[illegible]; [illegible]([illegible]) >[illegible] 2.0 [illegible]; [illegible]([illegible])[illegible] 0.6~2.0 [illegible]

[illegible],[illegible],[illegible],[illegible];[illegible] 100%;[illegible]

## 14.6.6 [illegible]

[illegible]-[illegible] (HJ446-2008)[illegible],[illegible] 14-6-7[illegible]

**[illegible] 14-6-7** [illegible]

| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|
| [illegible] | | | | |
| 1.[illegible]/% | ≥90 | ≥80 | ≥60 | 100 ([illegible]) |
| 2.[illegible]/[illegible]/% | ≥90 | ≥80 | ≥60 | / |
| 3.[illegible]/% | 100 | ≥90 | ≥80 | / |
| 4.[illegible]/% | ≥15 | | | 25 ([illegible]) |

[illegible],[illegible],[illegible],[illegible],[illegible]

## 14.6.7 [illegible]

[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

[illegible],[illegible],[illegible],[illegible],[illegible]

## 14.7 [illegible]

[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]:

(1) [illegible], [illegible], [illegible], [illegible],[illegible]

(2) [illegible], [illegible], [illegible]

(3) [illegible]-[illegible] (HJ446-2008) [illegible]

# 15 [illegible]

## 15.1 [illegible]

### 15.1.1 [illegible]

[illegible], [illegible],[illegible],[illegible],[illegible],[illegible],[illegible]([illegible]), [illegible]

### 15.1.2 [illegible]

(1)[illegible]

1)[illegible],[illegible],[illegible]

2)[illegible],[illegible],[illegible],[illegible],[illegible]

3) [illegible], [illegible]

4)[illegible];[illegible]

5)[illegible]“[illegible]”[illegible]

(2)[illegible]

1)[illegible];

2)[illegible],[illegible];

3)[illegible];

4)[illegible];

5)[illegible];

6)[illegible];

7)[illegible],[illegible];

8)[illegible];

9) [illegible], [illegible];
10)[illegible],[illegible]

### 15.1.3 [illegible]

(1) [illegible], [illegible], [illegible],[illegible]
(2) [illegible], [illegible], [illegible], [illegible]

## 15.2 [illegible]

[illegible],[illegible],[illegible]

[illegible],[illegible] $SO_2$[illegible]COD[illegible],[illegible],[illegible]

[illegible] (15562. 1-1995)[illegible],[illegible],[illegible] 2m[illegible]

[illegible],[illegible],[illegible],[illegible]

# 15.3 [illegible]

## 15.3.1 [illegible]

[illegible],[illegible],[illegible], [illegible],[illegible],[illegible],[illegible]

## 15.3.2 [illegible]

[illegible],[illegible],[illegible],[illegible]

(1) [illegible], [illegible],[illegible],[illegible],[illegible]

(2) [illegible], [illegible], [illegible]

(3)[illegible]

## 15.3.3 [illegible]

[illegible],[illegible] 15-3-1[illegible]

**[illegible] 15-3-1** [illegible]

| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|---|
| 1 | [illegible] | 1.[illegible]: [illegible], [illegible]<br>2.[illegible]: [illegible]<br>3.[illegible]: [illegible] | [illegible] | [illegible] | [illegible] |
| 2 | [illegible] | 1.[illegible]: [illegible]<br>2.[illegible]:2 [illegible]/[illegible] 1 [illegible],[illegible]<br>3.[illegible]: [illegible] | [illegible] | [illegible] | [illegible] |

## 15.3.4 [illegible]

[illegible],[illegible] 15-3-2[illegible]

**[illegible] 15-3-2** [illegible]

| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|---|
| 1 | [illegible] | 1.[illegible]: [illegible] (SS[illegible]COD[illegible] BOD$_5$ [illegible])<br>2.[illegible]: 4 [illegible]/[illegible]<br>3.[illegible]: [illegible] | [illegible] | [illegible] | [illegible] |
| 2 | [illegible] | 1.[illegible]: TSP[illegible]<br>2.[illegible]: 2 [illegible]/[illegible]<br>3.[illegible]: [illegible] | [illegible] | [illegible] | [illegible] |
| 3 | [illegible] | 1.[illegible]: TSP[illegible]<br>2.[illegible]: 2 [illegible]/[illegible]<br>3.[illegible]: [illegible] | [illegible] | [illegible] | [illegible] |
| 4 | [illegible] | 1.[illegible]: [illegible]<br>2.[illegible]: 2 [illegible]/[illegible],[illegible] 1 [illegible],[illegible]<br>3.[illegible]: [illegible] | [illegible] | [illegible] | [illegible] |
|  | [illegible] | 1.[illegible]: [illegible]<br>2.[illegible]: [illegible] 2 [illegible]<br>3.[illegible]: [illegible] | [illegible] | [illegible] | [illegible] |

[illegible],[illegible],[illegible]

## 15.4 [illegible]

### 15.4.1 [illegible]

[illegible], [illegible], [illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible],[illegible]

### 15.4.2 [illegible]

[illegible]:

(1)[illegible], [illegible], [illegible], [illegible]

(2)[illegible], [illegible],[illegible]

(3)[illegible], [illegible], [illegible], [illegible],[illegible]

### 15.4.3 [illegible]

(1) [illegible]

(2) [illegible], [illegible]

(3)[illegible], [illegible], [illegible]

## 15.5 [illegible]

[illegible] 15-5-1[illegible]

[illegible] 15-5-1 [illegible]“[illegible]”[illegible]

| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|
| — | [illegible] | | | |
| 1 | [illegible] | [illegible] 1 [illegible], [illegible] 80$m^3$/d, [illegible], [illegible], [illegible] (GB/T 18920__2002)[illegible],[illegible] | 1[illegible];<br>2[illegible] | [illegible] |
| 2 | [illegible] | 1.[illegible]“[illegible]+[illegible]+[illegible]”[illegible], [illegible], [illegible] (GB50383-2006)[illegible], [illegible] (GB/T 18920__2002)[illegible],[illegible]<br>2[illegible] | 1[illegible] (GB50383-2006)[illegible], [illegible] (GB/T 18920__2002)[illegible],[illegible] 100%<br>2[illegible],[illegible] | [illegible] |
| 3 | [illegible] | [illegible]; [illegible]__[illegible],[illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | | | |
| 1 | [illegible] | [illegible] 98%[illegible]; [illegible], [illegible], [illegible] 98% | [illegible] 80$mg/m^3$, [illegible] 10$mg/m^3$[illegible] | [illegible] |
| 2 | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | 1.[illegible], [illegible] 2 [illegible]<br>2. [illegible] | [illegible] | [illegible] |

| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] | 1[illegible] 15%[illegible]; 2[illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |

# 16.[illegible]

## 16.1 [illegible]

[illegible],[illegible],[illegible] (GB3095-2012)[illegible];[illegible] (GB3838-2002)[illegible] III [illegible]; [illegible](GB14848-93)[illegible] III [illegible]

## 16.2 [illegible]

[illegible] 12.00Mt/a , [illegible], 150-13mm [illegible]“[illegible]”[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

### 16.2.1 [illegible]

[illegible]“[illegible]”[illegible], [illegible] 4 [illegible], [illegible], [illegible] COD [illegible]

### 16.2.2 [illegible]

(1)[illegible]

[illegible] 103.25m$^3$/h, [illegible] 2478m$^3$/d, [illegible]

[illegible]: Q=400m$^3$/h=9600 m$^3$ /d,[illegible]“ [illegible]+[illegible]+[illegible]”[illegible], [illegible], [illegible] (GB50383-2006) [illegible], [illegible] (GB/T 18920__2002) [illegible], [illegible], [illegible],[illegible]

[illegible] 514. 12m$^3$/d,[illegible], [illegible] 1 [illegible], [illegible] 35m$^3$/d, [illegible], [illegible] (MBR [illegible]) [illegible], [illegible] (GB/T 18920__2002)[illegible],[illegible], [illegible], [illegible],[illegible]

[illegible],[illegible],[illegible]

[illegible] 8 [illegible], [illegible], [illegible], [illegible],[illegible] 80mg/m$^3$ ,[illegible]“ [illegible] 98%[illegible]80mg/m$^3$”[illegible], [illegible] 25.3m [illegible],[illegible] 0.63m[illegible]

[illegible], [illegible],[illegible]

[illegible]; [illegible]; [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible]

[illegible] 111 [illegible] t/a ([illegible] 2 [illegible] t/a,[illegible] 109 [illegible] t/a), [illegible]

[illegible], [illegible]; [illegible], [illegible], [illegible], [illegible],[illegible]

[illegible], [illegible] 1729 [illegible], [illegible] 0.5kg [illegible], [illegible] 315.5t/a, [illegible]

[illegible] 541t/a, [illegible], [illegible]; [illegible] 18.6kg/a, [illegible], [illegible]

### (2)[illegible]

[illegible]“ [illegible]+[illegible]+[illegible]”[illegible], [illegible], [illegible](GB50383-2006)[illegible],[illegible] (GB/T 18920__2002) [illegible], [illegible], [illegible], [illegible] (MBR [illegible]) [illegible], [illegible] (GB/T 18920__2002)[illegible],[illegible], [illegible],[illegible],[illegible],[illegible],[illegible]

[illegible] 1 mg/Nm$^3$;[illegible] (GB20426-2006) [illegible], [illegible],[illegible] TSP [illegible] 1 mg/Nm$^3$ ;[illegible] (GB18599-2001) [illegible] (GB20426-2006) [illegible],[illegible]“[illegible]”[illegible]

### (3)[illegible]

[illegible], [illegible]: [illegible]

[illegible], [illegible]; [illegible], [illegible], [illegible]

## 16. 3 [illegible]

### 16.3.1 [illegible]

[illegible] 2×660MW [illegible] 2014 [illegible] 8 [illegible], [illegible], [illegible], [illegible], [illegible] 125~80℃[illegible], [illegible], [illegible], [illegible]“[illegible]”[illegible], [illegible]

### 16.3.2 [illegible]

[illegible]“ [illegible]+[illegible]+[illegible]”[illegible],[illegible],[illegible] (GB50383-2006)[illegible], [illegible] (GB/T 18920__2002)[illegible],[illegible], [illegible], [illegible] (MBR [illegible]) [illegible], [illegible] (GB/T 18920 __2002) [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible],[illegible]

# 16.4 [illegible]

[illegible]: [illegible] 2×660MW [illegible]([illegible], [illegible]), [illegible] 125~80℃[illegible], [illegible], [illegible], [illegible], [illegible], [illegible]“[illegible]”[illegible],[illegible]

# 17 □□□□□□□□

## 17.1 □□□□□□□□□□

□□□□□□□□□,□□□□□□□□□□□□□ 17-1-1□

□ **17-1-1** □□□□□□□□□□□□□□□□□□□

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| 1 | □□□□□□□□□□□□ | 420.00 | “□□□”□□ |
| 2 | □□□□□□□□□□□ | 10.00 | “□□□”□□ |
| 3 | □□□□□ | 80.00 | “□□□”□□ |
| 4 | □□□□□□ | 1200.00 | “□□□”□□ |
| 5 | □□□□□□□□□ | 700.00 | “□□□”□□ |
| □ | □□□□□□ | 135 | |
| 1 | □□□□□□□□□□□□ | 50.00 | “□□□”□□ |
| 2 | □□□□□□□ | 30.00 | “□□□”□□ |
| 3 | □□□□□□ | 55.00 | “□□□”□□ |
| □ | □□□□□□□ | 15507.5 | |
| □ | □□□□□□□ | 292 | “□□□”□□ |
| □ | □□□□ | 170.00 | “□□□”□□ |
| □ | □□□□□□□□□□□□□□□ | 60.00 | “□□□”□□ |
| □ | □□□□ | 2040.43 | |
| 1 | □□□□ | 1930.43 | □□□□□□□□□□□,□“□□□”□□ |
| 2 | □□□□ | 30.00 | □□□□□□□ |
| 3 | □□□□ | 70.00 | □□□□□□□ |
| 4 | □□□□ | 10.00 | □□□□□□□□□□□□□□□□□□□□□□□□□□□□ |
| □□ | | 20614.93 | |
| | □□□□□□□□□□□□□□□ (%) | | |

□□□□□□ 511213.44 □□, □□□□□ 20614.93 □□, □□□□□□□□□□□ 4.03%□

## 17.2 □□□□□□□□

### 17.2.1 □□□□□

[illegible], [illegible]“[illegible]”**[illegible]:** [illegible]

301 **0991_4182190 3857017([illegible])**

[illegible], [illegible], [illegible]

## 17.2.2 [illegible]

(1)[illegible]

[illegible], [illegible], [illegible] 12.0Mt/a,[illegible]

[illegible], [illegible], [illegible], [illegible] 3~15°[illegible];[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

(2)[illegible]

[illegible] 85.37km$^2$ ,[illegible], [illegible], [illegible],[illegible],[illegible]

(3)[illegible]

[illegible] 1729 [illegible],[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

(4)[illegible]

[illegible] 175200 [illegible], [illegible] 24716.47 [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible],[illegible]

### 17.2.3 [illegible]

[illegible] 17-2-1[illegible]

**[illegible] 17-2-1** [illegible]

| [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|
| [illegible] | [illegible] | | |
| 1 | [illegible]([illegible]) | % | 14.66 |
| 2 | [illegible]([illegible]) | % | 19.98 |
| 3 | [illegible] | [illegible] | 13.22 |
| 4 | [illegible]([illegible]) | [illegible] | 109138 |
| 5 | [illegible]([illegible]) | [illegible] | 130026 |
| 6 | [illegible] | % | 9.43 |
| 7 | [illegible] | % | 16.70 |
| 8 | [illegible] | % | 23.56 |
| [illegible] | [illegible] | | |
| 1 | [illegible] | % | 67.20 |
| 2 | [illegible]([illegible]) | [illegible] | 10.03 |

[illegible], [illegible]([illegible])[illegible] 14.66%,[illegible] 10%,[illegible]([illegible])[illegible] 130026 [illegible],[illegible], [illegible], [illegible], [illegible] 9.43%;[illegible] 16.70%,[illegible] 67.20%,[illegible],[illegible]

## 17.3 [illegible]

### 17.3.1 [illegible]

[illegible],[illegible]:

$$Et=Et(O)+Et(I)$$

[illegible]: Et——[illegible]

Et(O)——[illegible]

Et(I)——[illegible]

(1)[illegible]

[illegible], [illegible] 15507.5 [illegible], [illegible] 171.5 [illegible]/[illegible],[illegible] 171.5 [illegible]

(2)[illegible]

[illegible], [illegible],[illegible]

[illegible] 3067 [illegible],[illegible],[illegible] 33.9 [illegible]

[illegible], [illegible], [illegible] 17-1-1 [illegible],[illegible] 199.9 [illegible]/[illegible]

[illegible] 233.8 [illegible]/[illegible]

(3)[illegible]

[illegible] 405.3 [illegible]/[illegible]

## 17.3.2 [illegible]

[illegible] (Hs) [illegible], [illegible]“[illegible]”[illegible], [illegible]:

(1)[illegible]

[illegible], [illegible], [illegible], [illegible],[illegible]

(2)[illegible]

[illegible] 1378080m3,[illegible] 2.6 [illegible]/m3 [illegible],[illegible] 358.3 [illegible]

(3) “[illegible]”[illegible]

[illegible]“[illegible]”[illegible],[illegible], [illegible], [illegible]“[illegible]”[illegible] 11 [illegible]/[illegible]

[illegible] (1) + (2) + (3) = 369.3 [illegible]/[illegible]

### 17.3.3 [illegible]

(1)[illegible]

[illegible] Hd [illegible] Et([illegible])[illegible] Hs [illegible], [illegible] 774.6 [illegible]/[illegible]

(2)[illegible]

[illegible] Hb [illegible],[illegible] Hb=Hd/M , M [illegible]([illegible]),[illegible],[illegible] 0.64 [illegible]/[illegible]

[illegible], [illegible], [illegible]

(3)[illegible]

[illegible],[illegible] Hx=Hd/Ge[illegible]

[illegible],[illegible] 0.006,[illegible] 1 [illegible],[illegible] 60 [illegible]

[illegible] 17-3-1[illegible]

[illegible] **17-3-1** [illegible]

| [illegible] | | | | [illegible] ([illegible]) | [illegible] ([illegible]) | [illegible] ([illegible] / [illegible]) | [illegible] ([illegible]/[illegible]) | [illegible] ([illegible]/[illegible]) |
|---|---|---|---|---|---|---|---|---|
| [illegible] | [illegible] | [illegible] | [illegible] | 15507.5 | 15507.5 | 171.5 | 405.3 | 774.6 |
| | | [illegible] | [illegible] | 3067 | 21137.96 | 233.8 | | |
| | | | [illegible] | 18070.96 | | | | |
| | [illegible] | [illegible] | | 32390.32 | 33384.72 | 369.3 | 369.3 | |
| | | [illegible] | | 0 | | | | |
| | | [illegible] ([illegible]) | | 994.4 | | | | |
| [illegible] ([illegible]/[illegible]) | | | | 0.64 | | | | |
| [illegible] ([illegible]/[illegible]) | | | | 60.0 | | | | |
| [illegible] (%) | | | | 1.07 | | | | |

# 18.□□□□□□□□□□□

## 18.1 □□□□□□□□□□□□

(1)□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ 12.00Mt/a,□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□“□□□□□□□□□□□□□”□“□□□□□□□,□□□□□□□□□□”□□

(2)□□□□□□□□ (St.d)□□□□□ 0.23~0.94%,□□ 0.44%;□□□□□□□□6□7□10□12□13□14□15□16□18□20□22□25□26□28□29□□□□□□; 5□19 □□□□□; 3 □□□□□□□□□□□□□□□ 4.87~49.21%□□, □□12.42~26.35%,□□ 17.77%,□□□□□□□13□14□15□16□19□22□26 □□□□□□□,□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ 41 □□□□□,□□□□□□□, □□□□□□□□□, □□□□□□□□□□□□□□□□□□□□□□[ 1988]5 □□“□□□□□□□□□□□ 3%□□” □□□□□□□□□

(3)□□□□□□□□□□□□□□□,□□□□□□□□,□□□□□□□□□□, □□□□□□□□□□□□□□□□□□, □□□□□□□□□,□□□□□□□□□□□□□□□□□□□

(4)□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ 95%, □□□□□100%; □□□□□□□□□□□□□□□□□□□, □□□□□□□□□□□□□□, □□□□□□□;□□□□□□□□□ 95%□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□(□□□[2010] 146 □)□□□,□□□□□,□□□□□□□□□□□□□□□□□□□□□□□

(5) □□□□□□□□□□ (2011 □ (2013□)), 120 □ t/a □□□□□□□□□□□□□□, □□□□□□□□□□□□□□□□□□□□□

[illegible]12.00Mt/a,[illegible],[illegible]

## 18.2 [illegible]

[illegible]

2013 [illegible] 9 [illegible], [illegible]: “[illegible] “[illegible]”[illegible]“[illegible]”[illegible], [illegible] 2017 [illegible], [illegible], [illegible] 10 [illegible], [illegible] 20 [illegible], [illegible] 10 [illegible]

[illegible] 2×660MW [illegible] 2014 [illegible] 8 [illegible],[illegible], [illegible], [illegible], [illegible], [illegible] 125~80℃[illegible],[illegible],[illegible]

## 18.3 [illegible]

### 18.3.1 [illegible]“[illegible]”[illegible]

[illegible]“[illegible]”[illegible], “[illegible]”[illegible]:

[illegible]:[illegible] 75%[illegible]:[illegible]95%[illegible]; 30 [illegible] 70%[illegible]; 30 [illegible]55%[illegible]([illegible])[illegible] 60 [illegible],[illegible] 8 [illegible]/[illegible] 800 [illegible],[illegible] 25 [illegible]

[illegible]:[illegible] 10000 [illegible]([illegible])[illegible] 300 [illegible]: [illegible] 160 [illegible], [illegible]; [illegible] 140 [illegible],[illegible] 60%[illegible]([illegible])[illegible] 285 [illegible] 7600 [illegible] 75%,[illegible] 75%[illegible]

[illegible]: [illegible] 60%; [illegible]; [illegible]

[illegible]

[illegible],[illegible] 100%,[illegible]“[illegible]”[illegible] 95%[illegible] 95%, [illegible] 100%, [illegible], [illegible], [illegible] 300m [illegible], [illegible]; [illegible] 95%, [illegible], [illegible]“[illegible]”[illegible]

## 18.3.2 [illegible]

[illegible]“ [illegible],[illegible]”[illegible]“ [illegible]—[illegible], [illegible], [illegible]”[illegible]“ [illegible], [illegible]”[illegible]“ [illegible]([illegible])[illegible], [illegible] (1000 [illegible] t/a)[illegible] (1000 [illegible] t/a)[illegible]” [illegible]“[illegible]”[illegible]

[illegible],[illegible] 12.00Mt/a,[illegible], [illegible], [illegible]

## 18.3.3 [illegible]“[illegible]”[illegible]

[illegible]“[illegible]”[illegible]: “[illegible],[illegible] 5000 [illegible] 1000 [illegible] 3000 [illegible]“[illegible]”[illegible],[illegible]

[illegible]”[illegible]2015 [illegible]: “[illegible] 6143 [illegible]([illegible] 3600 [illegible]), [illegible] 7750 [illegible]; ... , [illegible]±800 [illegible]±1100 [illegible]’’

[illegible]“[illegible]”[illegible],[illegible]“ [illegible]”[illegible]“[illegible]”[illegible]“ [illegible]”[illegible]“[illegible], [illegible], [illegible]: [illegible],[illegible], [illegible], [illegible]“[illegible]”[illegible]“[illegible]” [illegible]

[illegible], [illegible]“[illegible]”[illegible]

## 18.3.4 [illegible]

[illegible]: “ [illegible]” [illegible] 18-3-1[illegible]

[illegible] **18-3-1** [illegible]

| [illegible] | | [illegible] | [illegible] |
|---|---|---|---|
| [illegible], [illegible] | [illegible]“[illegible]” [illegible],[illegible],[illegible],[illegible]([illegible]66 [illegible]) [illegible] 2015[illegible], [illegible]2000 [illegible], [illegible]1200-1400 [illegible] | [illegible] 12.00Mt/a, [illegible], [illegible] | [illegible] |
| | [illegible]“[illegible]” [illegible],[illegible],[illegible]2015 [illegible], [illegible]1.5 [illegible]t [illegible] | | |

| [illegible] | | [illegible] | [illegible] |
|---|---|---|---|
| [illegible] | [illegible]: “[illegible]”[illegible],[illegible]—[illegible] … [illegible],[illegible]—[illegible]—[illegible]—[illegible]—[illegible]; | [illegible] | [illegible] |
| | [illegible]:[illegible]([illegible]-[illegible],[illegible]-[illegible])[illegible]-[illegible] … [illegible] | | |
| [illegible],[illegible] | [illegible]([illegible])[illegible](GB3838-2002)[illegible];[illegible]([illegible])[illegible]; [illegible],[illegible]60dB(A)[illegible];[illegible]90%,[illegible]80%[illegible]; [illegible]85%[illegible],[illegible]100%[illegible] | [illegible]95% ,[illegible]100%,[illegible],[illegible],[illegible]300m[illegible],[illegible];[illegible]95% ,[illegible] | [illegible] |

[illegible]:[illegible]“ [illegible]” [illegible]

## 18.4 [illegible]

### 18.4.1 [illegible]“[illegible]”[illegible]

[illegible] “[illegible]”[illegible], “ [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible]” ,
“ [illegible],[illegible],[illegible],[illegible] 2015 [illegible],[illegible] 11.4%,[illegible]” , “20 [illegible]([illegible])[illegible],[illegible]
[illegible]” , “[illegible]
[illegible]

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□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ 12.00Mt/a,□□□□□□□□□□□□□□□□□□□ ($S_{t.d}$)□□□□ 0.23~0.94%,□□ 0.44%; □□□□□□□□ 6 □ 7 □ 10 □ 12 □ 13 □ 14 □ 15 □ 16 □ 18 □ 20 □ 22 □ 25 □ 26 □ 28 □ 29 □□□□□□; 5 □ 19 □□□□□; 3 □□□□□□□□□□□□□□□ 4.87~49.21%□□, □□ 12.42~26.35% ,

□□ 17.77%, □□□□□□ 13 □ 14 □ 15 □ 16 □ 19 □ 22 □ 26 □□□□□□□,□□□□□□□□□□□□□□□□□□□□□□□□□□□□ 41 □□□□□, □□□□□□□, □□□□□□□□□, □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□, □□□□□□□□ 95%, □□□□□□ 100%□□□□□□□□□□□□□□□□□□□□, □□□□□□□□□□□□□□□□□

## 18.4.2 □□□□□□□□□□□□□□□□□□“□□□□”□□□□□□□□□

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[illegible], [illegible], [illegible],[illegible]

[illegible], [illegible], [illegible], [illegible], [illegible],[illegible] 100%,[illegible]“[illegible]”[illegible]

## 18.4.3 [illegible]

[illegible]: “[illegible]”[illegible],[illegible] 65%,[illegible] 65%,[illegible] 90%,[illegible] 85%,[illegible] 60%;[illegible] 85%,[illegible] 60%;[illegible] 65%;[illegible] 84% ,[illegible] 100% ; [illegible]: “[illegible]”[illegible], [illegible] 0.6283 [illegible],[illegible] 0.0362 [illegible],[illegible] 12.8 [illegible],[illegible] 7.9 [illegible];[illegible] GDP [illegible] 30%[illegible]

[illegible] 100%,[illegible]“[illegible]”[illegible] 95%[illegible] 83% ([illegible]),[illegible] 95%,[illegible] 100% ,[illegible], [illegible], [illegible] 300m [illegible],[illegible]; [illegible] 95% ,[illegible]

## 18.4.4 [illegible]

[illegible]，[illegible]，[illegible]，[illegible]，[illegible]，[illegible], [illegible]，[illegible] 59 [illegible]([illegible])[illegible]，[illegible]，[illegible]，[illegible] 23 [illegible]([illegible])，[illegible] 53 [illegible]([illegible])[illegible],[illegible],[illegible] 107 [illegible]

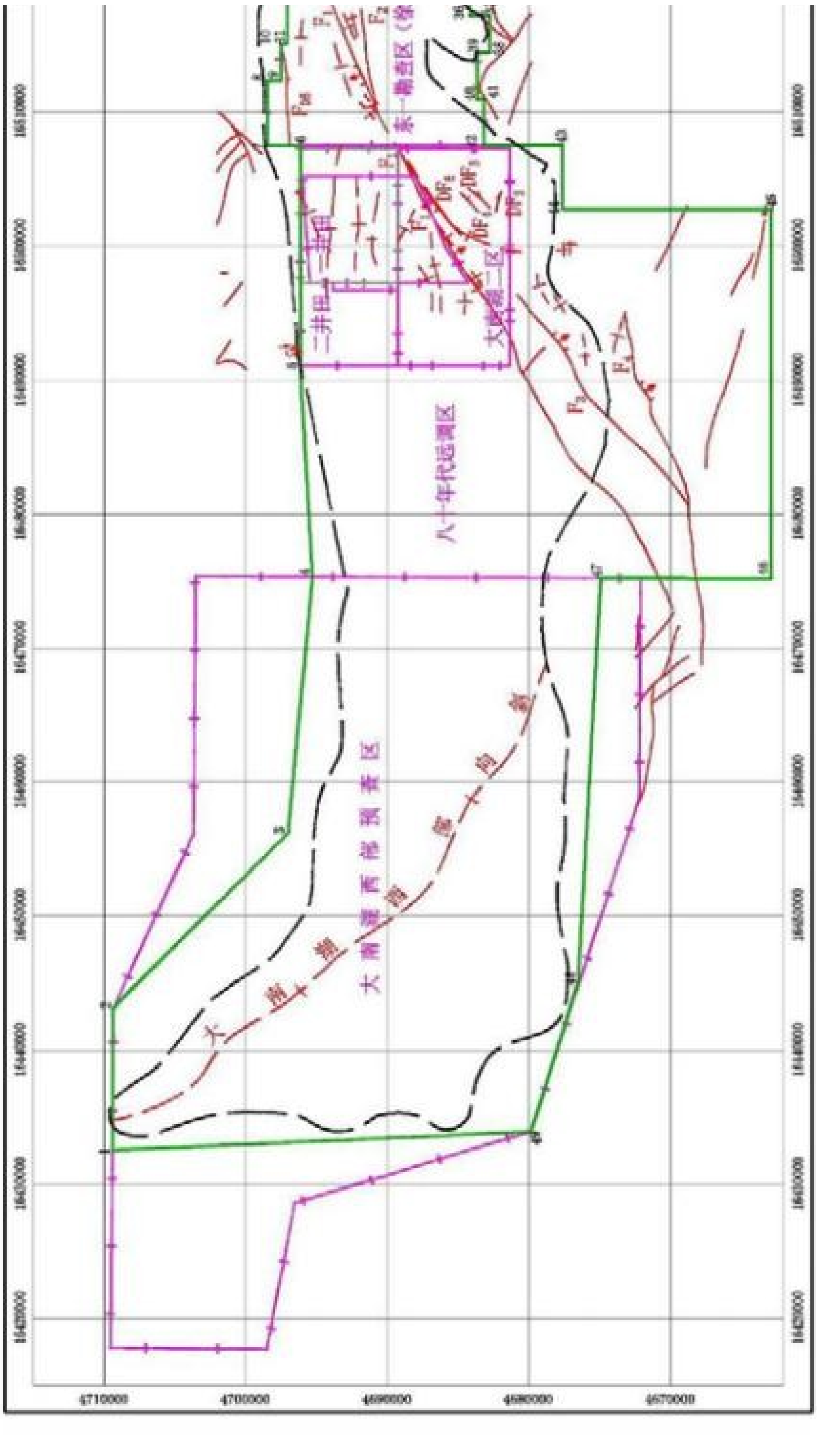
[illegible],[illegible] 190° [illegible] 40km [illegible],[illegible] 20km,[illegible]，[illegible]

## 18.5 [illegible]

(1) [illegible]

[illegible]: [illegible] F1 [illegible], [illegible] 3 [illegible]7 [illegible] 25 [illegible]; [illegible] FD5 [illegible]，[illegible] 5 [illegible]7 [illegible] 15 [illegible] 16 [illegible] 18 [illegible] 19-1 [illegible];[illegible] 5[illegible]7 [illegible]; [illegible]，[illegible]

[illegible] 46. 11km,[illegible] 17.48km,[illegible] 479.40km$^2$ ,[illegible] 24 [illegible],[illegible] 18-5-1[illegible]


八十年代远调区
大南湖西部勘查区
大南湖向斜
二井田
大南湖二区
东一勘查区（依
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4690000
4680000
4670000
16510000
16500000
16490000
16480000
16470000
16460000
16450000
16440000
16430000
16420000

图18.5-1 大南湖七号煤矿与大南湖矿区西区位置关系图

**[illegible] 18-5-1** [illegible]

| [illegible] | [illegible] (X) | [illegible] (Y) | [illegible] | [illegible] (X) | [illegible] (Y) |
|---|---|---|---|---|---|
| 1 | 4698072 | 16520577 | 13 | 4689036 | 16507326 |
| 2 | 4696838 | 16515570 | 14 | 4680596 | 16507334 |
| 3 | 4696017 | 16505260 | 15 | 4684495 | 16510798 |
| 4 | 4695466 | 16497280 | 16 | 4684874 | 16520616 |
| 5 | 4696156 | 16491081 | 17 | 4685092 | 16526250 |
| 6 | 4689280 | 16491072 | 18 | 4686875 | 16537254 |
| 7 | 4680642 | 16491061 | 19 | 4691621 | 16537187 |
| 8 | 4682453 | 16494467 | 20 | 4692453 | 16533483 |
| 9 | 4683490 | 16495914 | 21 | 4695500 | 16530000 |
| 10 | 4684281 | 16497280 | 22 | 4695500 | 16526211 |
| 11 | 4685918 | 16500109 | 23 | 4692124 | 16520594 |
| 12 | 4688029 | 16505261 | 24 | 4694916 | |

[illegible]:[illegible] 1980 [illegible],[illegible] 1985 [illegible]

[illegible] [illegible] [illegible],[illegible] 15.00Mt/a,[illegible] 3.00Mt/a,[illegible] 47.00Mt/a[illegible]

[illegible] 12.00Mt/a,[illegible] 86.37km² [illegible],[illegible],[illegible] 85.37 km² [illegible] 18.5-1[illegible]

(2)[illegible]

[illegible] 2013 [illegible] 7 [illegible], [illegible] 2013 [illegible] 8 [illegible] 14 [illegible]2013[illegible] 200 [illegible]`,[illegible] 18-5-2[illegible]

**[illegible] 18-5-2** [illegible]

| [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|
| [illegible] | (1) [illegible] 100% , [illegible]<br>(2)[illegible]([illegible]),[illegible]<br>(3)[illegible], [illegible], | (1)[illegible],[illegible];<br>(2)[illegible],[illegible];<br>(3)[illegible] | [illegible] |

| [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|
|  | [illegible] | [illegible], [illegible], [illegible] |  |
| [illegible] | [illegible], [illegible], [illegible]<br>[illegible] | [illegible] | [illegible] |
| [illegible] | [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]<br>[illegible], [illegible] 95%~98%; [illegible], [illegible], [illegible], [illegible]; [illegible], [illegible], [illegible]; [illegible], [illegible], [illegible] 80mg/m$^3$ [illegible], [illegible] | (1) [illegible] 2×660MW [illegible], [illegible] 125~80℃ [illegible], [illegible], [illegible];<br>(2) [illegible];<br>(3) [illegible], [illegible];<br>(4) [illegible], [illegible], [illegible] | [illegible] |
| [illegible] | (1) [illegible], [illegible], [illegible];<br>(2) [illegible];<br>(3) [illegible], [illegible], [illegible] | (1) [illegible], [illegible]; [illegible], [illegible], [illegible] | [illegible] |

| [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|
|  |  | [illegible], [illegible], [illegible], [illegible]<br>(2) [illegible], [illegible] |  |
| [illegible] | (1) [illegible]: [illegible]<br>(2) [illegible]: [illegible], [illegible], [illegible], [illegible]<br>(3) [illegible]: [illegible], [illegible], [illegible], [illegible], [illegible]<br>(4) [illegible] | (1) [illegible]: [illegible], [illegible], [illegible], [illegible]<br>(2) [illegible], [illegible], [illegible], [illegible]<br>(3) [illegible]: [illegible], [illegible], [illegible], [illegible], [illegible]<br>(4) [illegible] | [illegible] |

| [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|
|  |  | [illegible]: [illegible]<br>[illegible], [illegible]<br>[illegible]<br>[illegible], [illegible]<br>[illegible], [illegible]<br>[illegible]<br>(5)[illegible] |  |
| [illegible] | (1)[illegible],[illegible],[illegible];<br>(2) [illegible], [illegible],[illegible],[illegible];[illegible],[illegible] | (1)[illegible],<br>[illegible];<br>(2)[illegible],[illegible];<br>[illegible],<br>[illegible] | [illegible] |

# 19.[illegible]

## 19.1 [illegible]

(1)[illegible]

[illegible] ([illegible][2006]28 [illegible])[illegible] ([illegible])[illegible],[illegible],[illegible],[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible],[illegible]

[illegible],[illegible],[illegible],[illegible], [illegible], [illegible], [illegible], [illegible]

(2)[illegible]

[illegible],[illegible],[illegible]

[illegible], [illegible], [illegible], [illegible], [illegible]

[illegible]

# 19.2 [illegible]

## 19.2.1 [illegible]

[illegible]

## 19.2.2 [illegible]

[illegible]-[illegible]([illegible])[illegible],[illegible],[illegible],[illegible], [illegible]

## 19.2.3 [illegible]

[illegible], [illegible], [illegible]

[illegible],[illegible], [illegible],[illegible] 19-2-1[illegible]

[illegible],[illegible],[illegible]

[illegible], [illegible], [illegible], [illegible], [illegible]

[illegible] 19-2-1 [illegible]

| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|
| [illegible] | 2010.12 | [illegible] | [illegible] | [illegible],[illegible] |
| [illegible] | 2014.08 | [illegible] | [illegible] | [illegible] |
| | | [illegible] | [illegible] | [illegible] |
| | | [illegible] | [illegible] | [illegible] |
| | | [illegible] | [illegible] | [illegible], [illegible] |
| | | [illegible] | [illegible] | [illegible] |
| | | | [illegible] | [illegible],[illegible] |
| | 2015.07 | [illegible] | [illegible] | [illegible] |

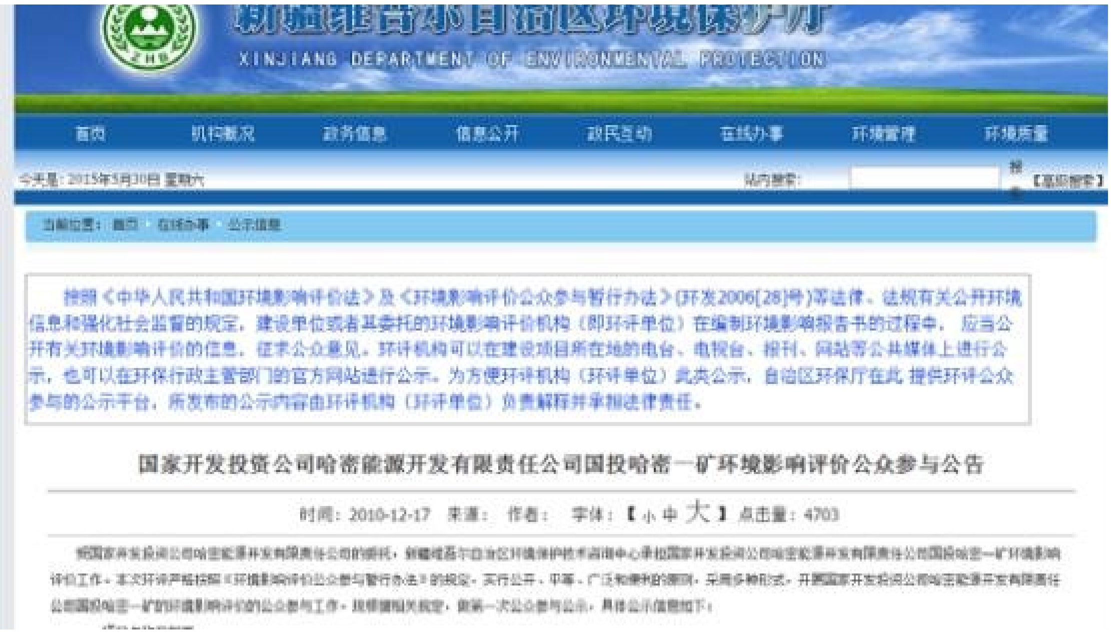
## 19.3 [illegible]

[illegible] 7 [illegible],[illegible] 2010 [illegible] 12 [illegible],[illegible](http://www.xjepb.gov.cn )[illegible]

[illegible]; [illegible]; [illegible]; [illegible];[illegible]

[illegible]:

(http://www.xjepb.gov.cn/tabid/821/InfoID/364204/frtid/41/Default.aspx ),[illegible] 19.3-1[illegible]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按照《中华人民共和国环境影响评价法》及《环境影响评价公众参与暂行办法》(环发2006[28]号)等法律、法规有关公开环境信息和强化社会监督的规定，建设单位或者其委托的环境影响评价机构（即环评单位）在编制环境影响报告书的过程中，应当公开有关环境影响评价的信息，征求公众意见。环评机构可以在建设项目所在地的电台、电视台、报刊、网站等公共媒体上进行公示，也可以在环保行政主管部门的官方网站进行公示。为方便环评机构（环评单位）发布公示，自治区环保厅在此提供环评公众参与的公示平台，所发布的公示内容由环评机构（环评单位）负责解释并承担法律责任。

国家开发投资公司哈密能源开发有限责任公司国投哈密一矿环境影响评价公众参与公告

时间：2010-12-17 来源： 作者： 字体：【小 中 大】 点击量：4703

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【高级搜索】

[illegible] 19.3-1 [illegible] ([illegible])

## 19.4 [illegible]

[illegible]; [illegible]; [illegible]; [illegible]; [illegible], [illegible]; [illegible];[illegible];[illegible]

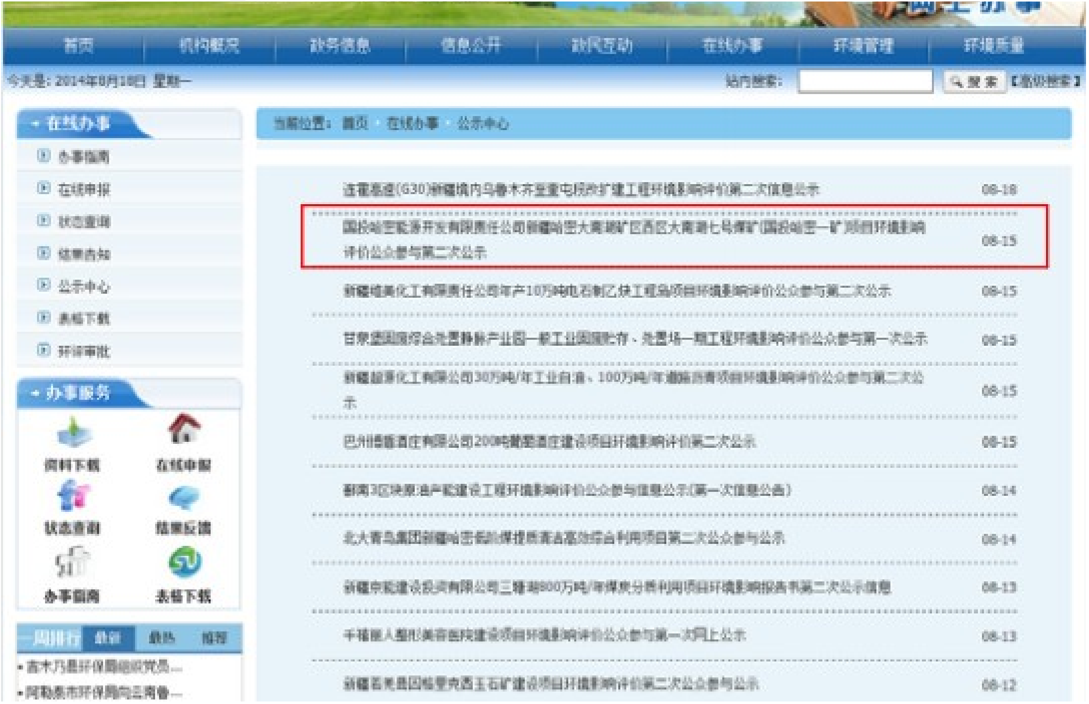
[illegible]:[illegible],[illegible],[illegible]

### 19.4.1 [illegible]

(1)[illegible]

[illegible],[illegible] 2014 [illegible] 8 [illegible] (http://www.hami.gov.cn )[illegible](http://www.xjepb.gov.cn)[illegible]“[illegible]”[illegible]:

(□□□□□ http://www.hami.gov.cn/info/1073/55125.htm,□□□□□ http://www.hami.gov.cn/info/1073/55125.htm ), □□□□□□□□ 19.4-1 ,□ 19.4-2□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- 吉木乃县环保局组织党员...
- 阿勒泰市环保局向云南鲁...

连霍高速(G30)新疆境内乌鲁木齐至奎屯段改扩建工程环境影响评价第二次信息公示 08-18

国投哈密能源开发有限责任公司新疆哈密大南湖矿区西区大南湖七号煤矿(国投哈密一矿)项目环境影响评价公众参与第二次公示 08-15

新疆维美化工有限责任公司年产10万吨电石制乙炔工程岛项目环境影响评价公众参与第二次公示 08-15

甘泉堡国际综合危废静脉产业园一般工业固废贮存、处置场一期工程环境影响评价公众参与第一次公示 08-15

新疆超源化工有限公司30万吨/年工业白油、100万吨/年道路沥青项目环境影响评价公众参与第二次公示 08-15

巴州德盛酒庄有限公司200吨葡萄酒庄建设项目环境影响评价第二次公示 08-15

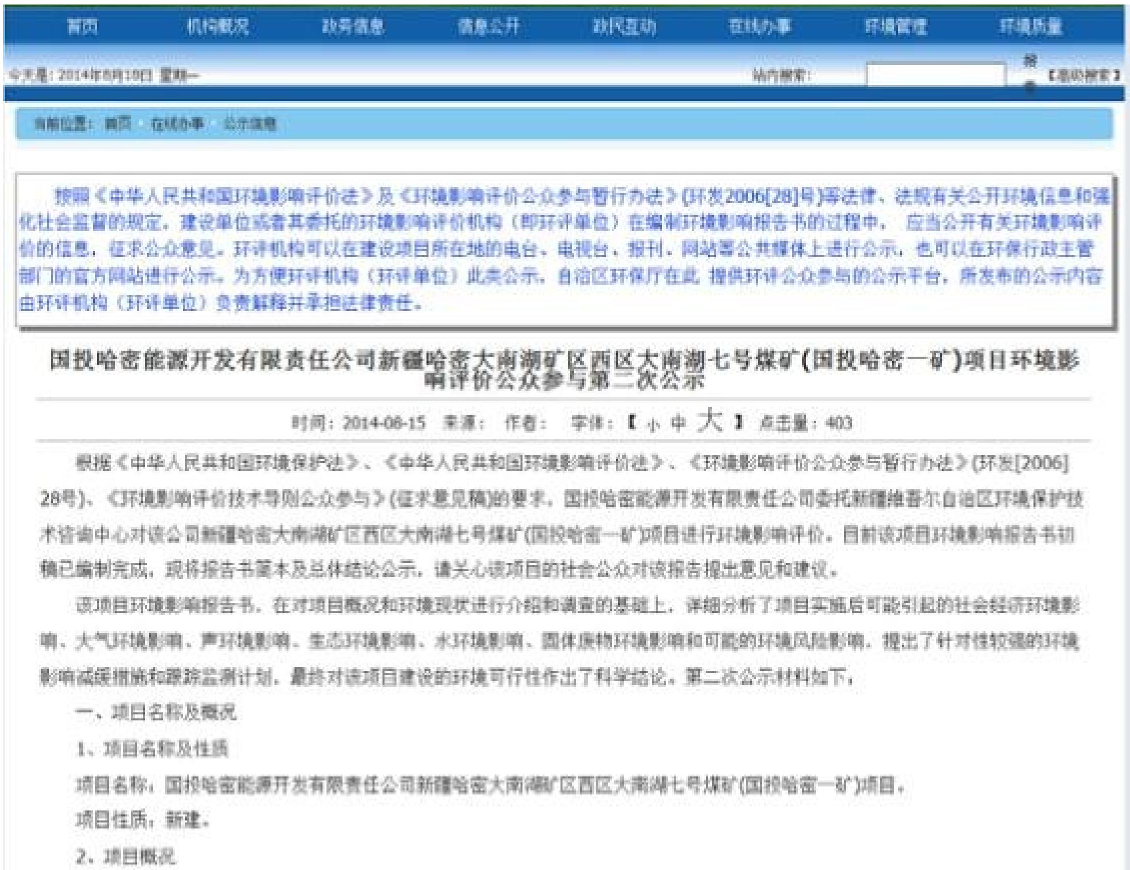
鄯善3区块原油产能建设工程环境影响评价公众参与信息公示(第一次信息公告) 08-14

北大青鸟集团新疆哈密低阶煤提质清洁高效综合利用项目第二次公众参与公示 08-14

新疆中能建设投资有限公司三塘湖800万吨/年煤炭分质利用项目环境影响报告书第二次公示信息 08-13

千禧丽人整形美容医院建设项目环境影响评价公众参与第一次网上公示 08-13

新疆若羌县因格里克西玉石矿建设项目环境影响评价第二次公众参与公示 08-12



按照《中华人民共和国环境影响评价法》及《环境影响评价公众参与暂行办法》(环发2006[28]号)等法律、法规有关公开环境信息和强化社会监督的规定，建设单位或者其委托的环境影响评价机构（即环评单位）在编制环境影响报告书的过程中， 应当公开有关环境影响评价的信息，征求公众意见。环评机构可以在建设项目所在地的电台、电视台、报刊、网站等公共媒体上进行公示，也可以在环保行政主管部门的官方网站进行公示。为方便环评机构（环评单位）此类公示，自治区环保厅在此 提供环评公众参与的公示平台，所发布的公示内容由环评机构（环评单位）负责解释并承担法律责任。

**国投哈密能源开发有限责任公司新疆哈密大南湖矿区西区大南湖七号煤矿(国投哈密一矿)项目环境影响评价公众参与第二次公示**

时间：2014-08-15 来源： 作者： 字体：【 小 中 大 】 点击量：403

根据《中华人民共和国环境保护法》、《中华人民共和国环境影响评价法》、《环境影响评价公众参与暂行办法》(环发[2006]28号)、《环境影响评价技术导则公众参与》(征求意见稿)的要求，国投哈密能源开发有限责任公司委托新疆维吾尔自治区环境保护技术咨询中心对该公司新疆哈密大南湖矿区西区大南湖七号煤矿(国投哈密一矿)项目进行环境影响评价。目前该项目环境影响报告书初稿已编制完成，现将报告书简本及总体结论公示，请关心该项目的社会公众对该报告提出意见和建议。

该项目环境影响报告书，在对项目概况和环境现状进行介绍和调查的基础上，详细分析了项目实施后可能引起的社会经济环境影响、大气环境影响、声环境影响、生态环境影响、水环境影响、固体废物环境影响和可能的环境风险影响，提出了针对性较强的环境影响减缓措施和跟踪监测计划，最终对该项目建设的环境可行性作出了科学结论。第二次公示材料如下：

一、项目名称及概况

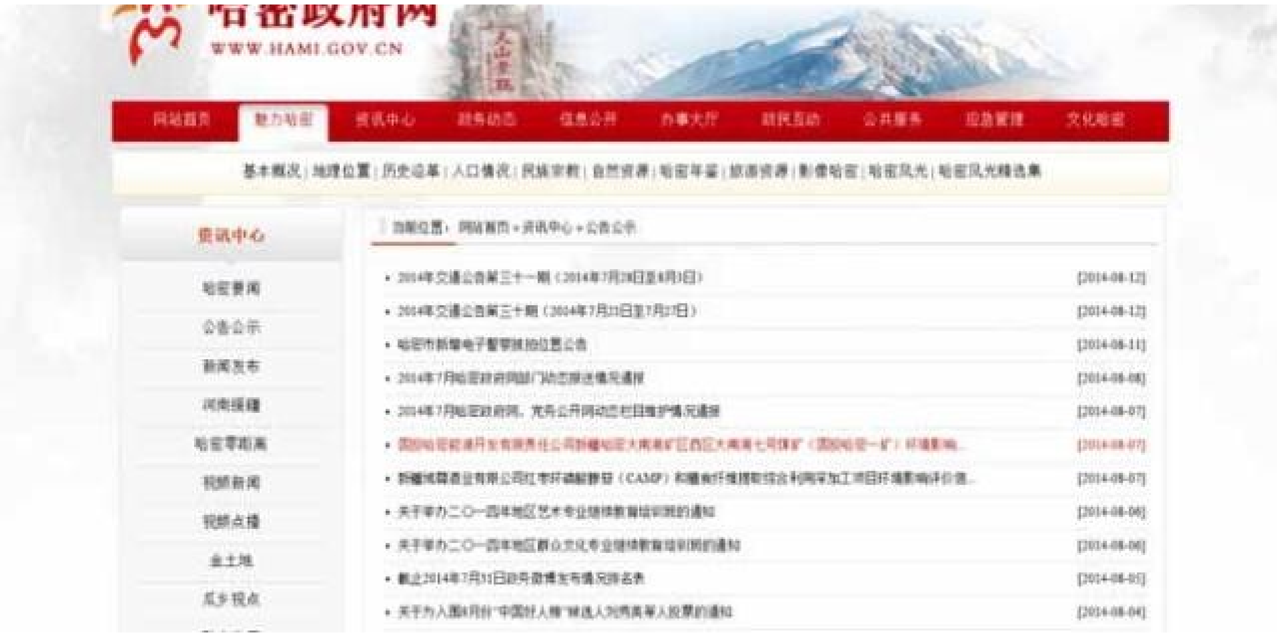
1、项目名称及性质

项目名称：国投哈密能源开发有限责任公司新疆哈密大南湖矿区西区大南湖七号煤矿(国投哈密一矿)项目。

项目性质：新建。

2、项目概况

**[illegible] 19.4-1 [illegible] ([illegible])**


哈密政府网
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网站首页
魅力哈密
资讯中心
政务动态
信息公开
办事大厅
政民互动
公共服务
应急管理
文化哈密
基本概况 | 地理位置 | 历史沿革 | 人口情况 | 民族宗教 | 自然资源 | 哈密年鉴 | 旅游资源 | 影像哈密 | 哈密风光 | 哈密风光精选集
资讯中心
哈密要闻
公告公示
新闻发布
河南援疆
哈密零距离
视频新闻
视频点播
金土地
瓜乡视点

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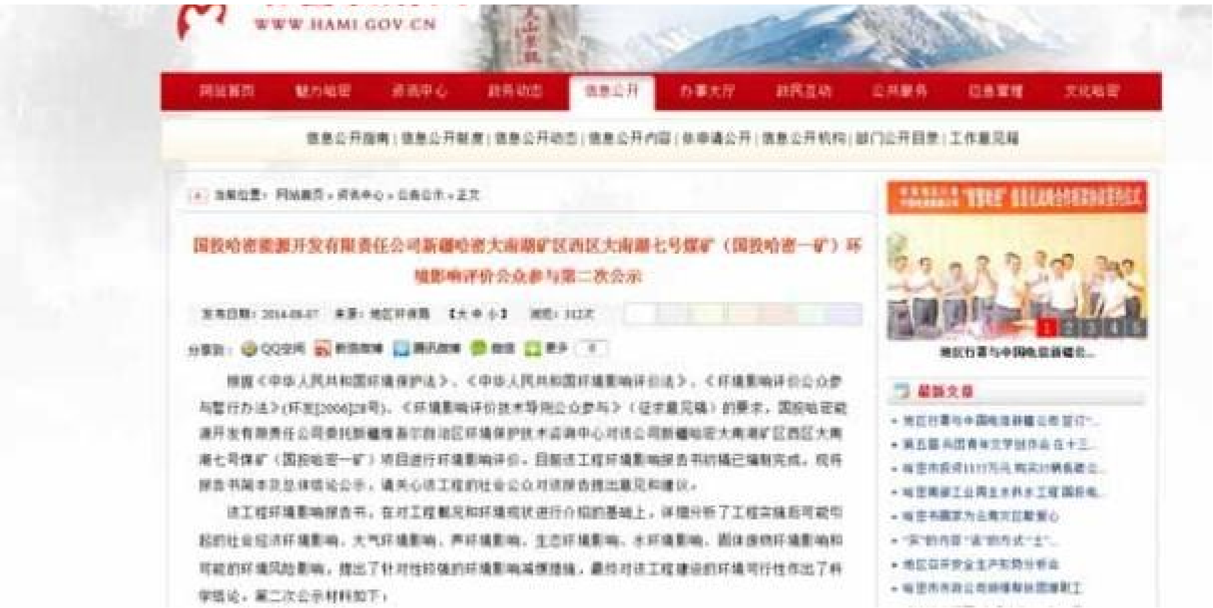
- 2014年交通公告第三十一期（2014年7月28日至8月3日） [2014-08-12]
- 2014年交通公告第三十期（2014年7月21日至7月27日） [2014-08-12]
- 哈密市新增电子警察抓拍位置公告 [2014-08-11]
- 2014年7月哈密政府网部门动态报送情况通报 [2014-08-08]
- 2014年7月哈密政府网、党务公开网动态栏目维护情况通报 [2014-08-07]
- 国投哈密能源开发有限责任公司新疆哈密大南湖矿区西区大南湖七号煤矿（国投哈密一矿）环境影响... [2014-08-07]
- 新疆城基置业有限公司红枣环磷酸腺苷（CAMP）和棉籽纤维提取综合利用深加工项目环境影响评价信... [2014-08-07]
- 关于举办二〇一四年地区艺术专业继续教育培训班的通知 [2014-08-06]
- 关于举办二〇一四年地区群众文化专业继续教育培训班的通知 [2014-08-06]
- 截止2014年7月31日政务微博发布情况排名表 [2014-08-05]
- 关于为入围8月份"中国好人榜"候选人刘秀英等人投票的通知 [2014-08-04]


WWW.HAMI.GOV.CN
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魅力哈密
资讯中心
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办事大厅
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公共服务
应急管理
文化哈密
信息公开指南 | 信息公开制度 | 信息公开动态 | 信息公开内容 | 依申请公开 | 信息公开机构 | 部门公开目录 | 工作意见箱
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国投哈密能源开发有限责任公司新疆哈密大南湖矿区西区大南湖七号煤矿（国投哈密一矿）环境影响评价公众参与第二次公示

发布日期：2014-08-07　来源：地区环保局　【大 中 小】　浏览：312次

根据《中华人民共和国环境保护法》、《中华人民共和国环境影响评价法》、《环境影响评价公众参与暂行办法》(环发[2006]28号)、《环境影响评价技术导则公众参与》（征求意见稿）的要求，国投哈密能源开发有限责任公司委托新疆维吾尔自治区环境保护技术咨询中心对该公司新疆哈密大南湖矿区西区大南湖七号煤矿（国投哈密一矿）项目进行环境影响评价。目前该工程环境影响报告书初稿已编制完成，现将报告书简本及总体结论公示，请关心该工程的社会公众对该报告提出意见和建议。

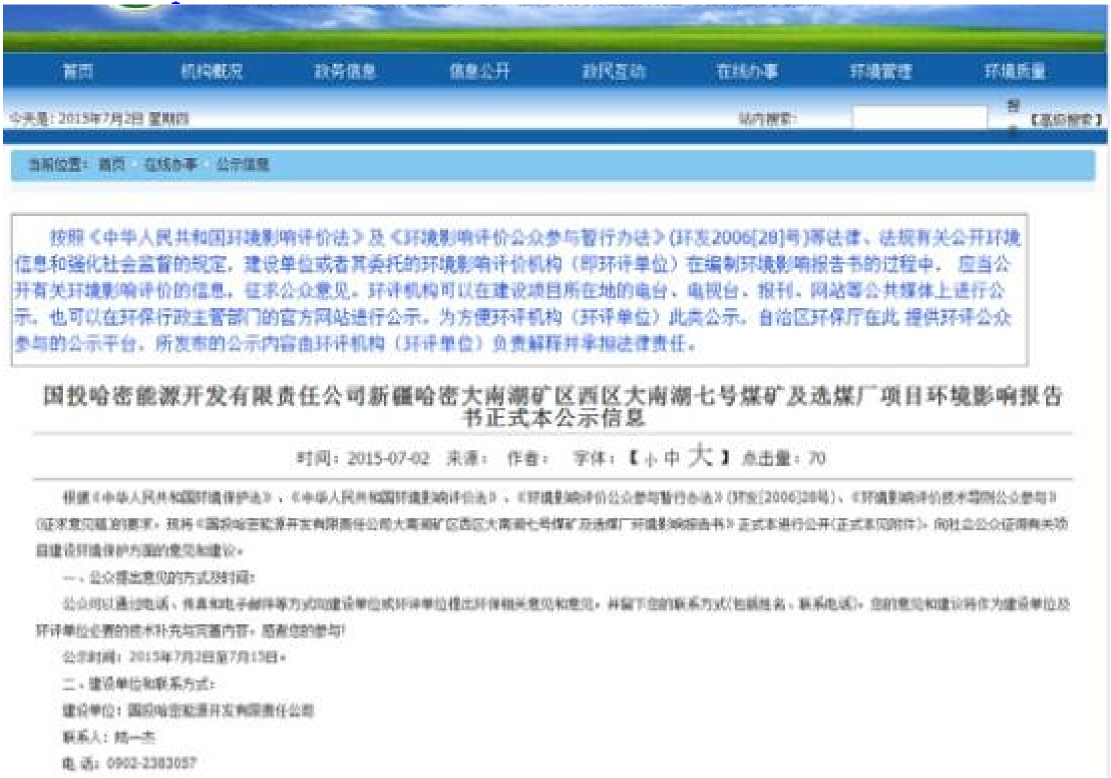
该工程环境影响报告书，在对工程概况和环境现状进行介绍的基础上，详细分析了工程实施后可能引起的社会经济环境影响、大气环境影响、声环境影响、生态环境影响、水环境影响、固体废物环境影响和可能的环境风险影响，提出了针对性较强的环境影响减缓措施，最终对该工程建设的环境可行性作出了科学结论，第二次公示材料如下：

**□ 19.4_2 □□□□□□□□□□ (□□□□□□□)**

(2)□□□□□

□2015□7□2 □, □□□□□□□□□□□(http://www.xjepb.gov.cn/ ) “□□□□”□□□□□□□□□□□□□□□□□□□□□(□□ 19.4-3),□□□□□□□□□□□□□□□□□□□:

http://www.xjepb.gov.cn/tabid/821/InfoID/432056/frtid/386/Default.aspx



按照《中华人民共和国环境影响评价法》及《环境影响评价公众参与暂行办法》(环发2006[28]号)等法律、法规有关公开环境信息和强化社会监督的规定，建设单位或者其委托的环境影响评价机构（即环评单位）在编制环境影响报告书的过程中，应当公开有关环境影响评价的信息，征求公众意见。环评机构可以在建设项目所在地的电台、电视台、报刊、网站等公共媒体上进行公示，也可以在环保行政主管部门的官方网站进行公示。为方便环评机构（环评单位）此类公示，自治区环保厅在此提供环评公众参与的公示平台，所发布的公示内容由环评机构（环评单位）负责解释并承担法律责任。

国投哈密能源开发有限责任公司新疆哈密大南湖矿区西区大南湖七号煤矿及选煤厂项目环境影响报告书正式本公示信息

时间：2015-07-02 来源： 作者： 字体：【小 中 大】 点击量：70

根据《中华人民共和国环境保护法》、《中华人民共和国环境影响评价法》、《环境影响评价公众参与暂行办法》(环发[2006]28号)、《环境影响评价技术导则公众参与》(征求意见稿)的要求，现将《国投哈密能源开发有限责任公司大南湖矿区西区大南湖七号煤矿及选煤厂环境影响报告书》正式本进行公开(正式本见附件)，向社会公众征询有关项目建设环境保护方面的意见和建议。

一、公众提出意见的方式及时间：

公众可以通过电话、传真和电子邮件等方式向建设单位或环评单位提出环保相关意见和意见，并留下您的联系方式(包括姓名、联系电话)。您的意见和建议将作为建设单位及环评单位必要的技术补充与完善内容，感谢您的参与！

公示时间：2015年7月2日至7月15日。

二、建设单位和联系方式：

建设单位：国投哈密能源开发有限责任公司

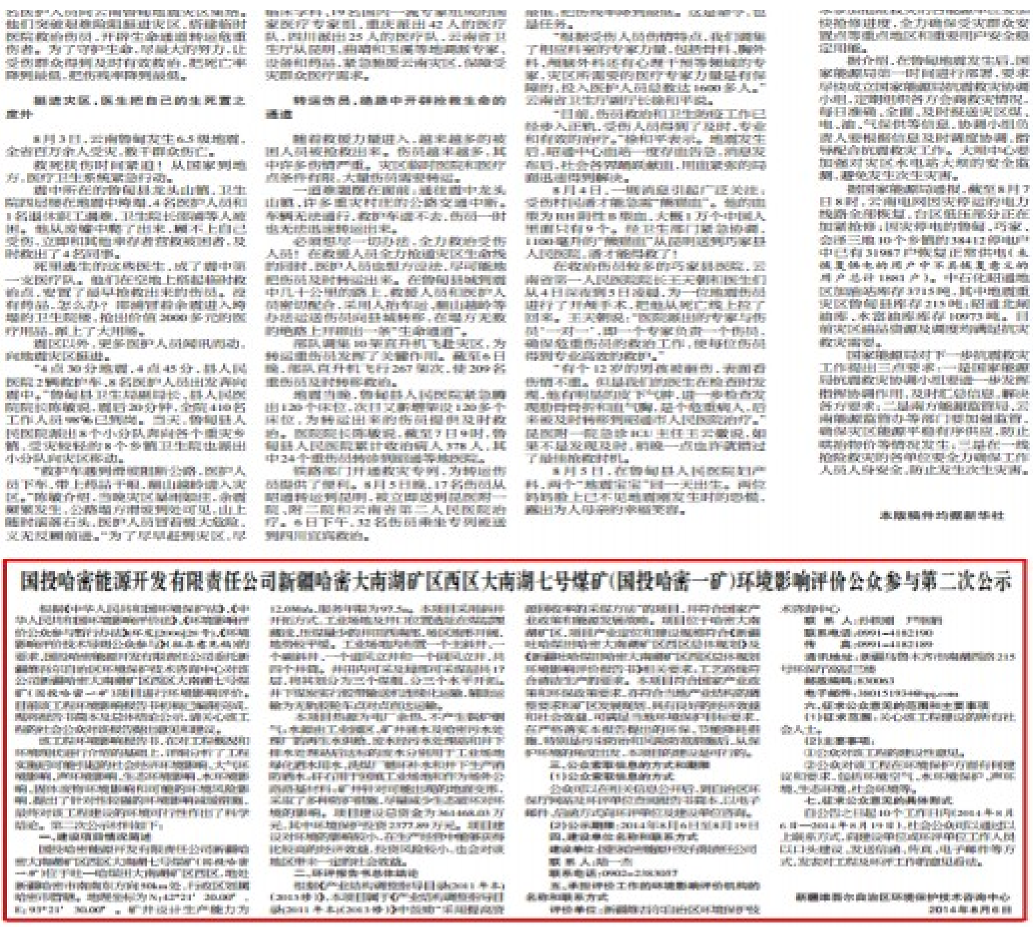
联系人：陆一杰

电 话：0902-2383057

**□ 19.4_3 □□□□□□□□□ (□□□□□□□□□)**

## 19.4.2 □□□□

□2014□8□9 □□“ □□□□A07 □”□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□, □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□; □□□□□□□□□□□□□□□□(□□□□□□□□□)□



国投哈密能源开发有限责任公司新疆哈密大南湖矿区西区大南湖七号煤矿(国投哈密一矿)环境影响评价公众参与第二次公示

新疆维吾尔自治区环境保护技术咨询中心

[illegible] 19.4-4 [illegible]

## 19.4.3 [illegible]

[illegible], [illegible],[illegible], [illegible], [illegible],[illegible] 19.4-5[illegible]

[illegible]

[illegible]

图 19.4-5 [illegible]

## 19.4.4 [illegible]

[illegible] 169 [illegible],[illegible] 8 [illegible],[illegible] 161 [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible] 19.4-5[illegible]

[illegible] 19-4-1 [illegible] 19.4-2,[illegible] 19-4-3[illegible] 19.4-4[illegible]

图 19.4-6 [illegible]

表 19-4-1 [illegible] ([illegible])

|  |  |  |  |  |  |
|---|---|---|---|---|---|
| [illegible]([illegible]) |  |  |  |  |  |
| [illegible] |  |  |  |  |  |
| [illegible] |  | [illegible] |  | [illegible] |  |
| [illegible] |  |  |  | [illegible] |  |
| [illegible] | [illegible]200m [illegible] □<br>200-1000m [illegible] □<br>1000m [illegible] □ |  |  |  |  |

|  |  |
|---|---|
| 1.[illegible] | A [illegible] □ B [illegible] □ |
| 2.[illegible] | A [illegible] □ B [illegible] □ C [illegible] □ |
| 3.[illegible] | A [illegible]□ B [illegible] □ C [illegible] □ |
| 4.[illegible] | A [illegible]□ B [illegible] □ C [illegible] □ |
| 5 . [illegible]? | A [illegible]□ B [illegible]□ C [illegible]□ D [illegible]□ |
| 6.[illegible],[illegible]? | A [illegible] □ B [illegible]□ C [illegible] □<br>D [illegible]□ E [illegible]□ F [illegible] □ |

**7.** [illegible], [illegible]?[illegible]?

**8.** [illegible], [illegible], [illegible]?[illegible]?[illegible]

**9.** [illegible]

## [illegible]19-4-2 [illegible] ([illegible])

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| [illegible] ([illegible]) | | | | | | | |
| [illegible]* | | [illegible]* | | [illegible]* | | [illegible]* | |
| [illegible]* | | [illegible] | | [illegible]* | | | |
| [illegible]* | | | | | | | |
| ([illegible])[illegible]([illegible]) | | | | | | | |
| [illegible]([illegible])[illegible]?[illegible]? | | | | | | | |
| [illegible]([illegible])[illegible]?[illegible]? | | | | | | | |
| [illegible]? | | | | A [illegible] □ B [illegible] □ C [illegible] □ D [illegible]□<br>[illegible]: | | | |
| [illegible] | | | | A [illegible] □ B [illegible] □ C [illegible] □ | | | |
| ([illegible])[illegible]([illegible]) | | | | | | | |
| [illegible]? | | | | A [illegible] □ B [illegible]□ C [illegible] □ | | | |
| [illegible]? | | | | A [illegible] □ B [illegible] □<br>[illegible] | | | |
| [illegible]?[illegible]? | | | | | | | |
| [illegible],[illegible]?[illegible],[illegible] | | | | | | | |
| [illegible]? | | | | A[illegible] □ B [illegible] □<br>C [illegible]([illegible]) □ | | | |
| ([illegible])[illegible]([illegible]) | | | | | | | |
| [illegible]? | | | | A [illegible]□ B [illegible]([illegible]) □ C [illegible]□ | | | |
| [illegible]?[illegible]?[illegible],[illegible] | | | | | | | |
| [illegible] | | | | | | | |

[illegible] **19-4-3** [illegible]

| [illegible] | [illegible] |
|---|---|
| 1 | [illegible] |
| 2 | [illegible] |
| 3 | [illegible] |
| 4 | [illegible] |
| 5 | [illegible] |
| 6 | [illegible] |
| 7 | [illegible] |
| 8 | [illegible] |

[illegible] 19-4-5 ō

[illegible] **19-4-5** [illegible]

| [illegible] | [illegible] | | [illegible] | [illegible](%) |
|---|---|---|---|---|
| 1 | [illegible] | [illegible] | 128 | 79.50 |
| | | [illegible] | 33 | 20.50 |
| 2 | [illegible] | 30 [illegible] | 86 | 54.09 |
| | | 31-40 [illegible] | 35 | 22.01 |
| | | 41-50 [illegible] | 28 | 17.61 |
| | | 51 [illegible] | 10 | 6.29 |
| 3 | [illegible] | [illegible] | 38 | 24.36 |
| | | [illegible] | 118 | 66.29 |
| 4 | [illegible] | [illegible] | 60 | 37.27 |
| | | [illegible] | 61 | 37.89 |
| | | [illegible] | 4 | 2.48 |
| | | [illegible] | 36 | 24.66 |
| 5 | [illegible] | [illegible] | 138 | 86.25 |
| | | [illegible] | 20 | 12.5 |
| | | [illegible] | 2 | 1.25 |

[illegible], [illegible] 128 [illegible], [illegible] 79.50%ō [illegible] 30 [illegible] 86 [illegible], [illegible] 54.09%ō [illegible] 118 [illegible], [illegible] 66.29%, [illegible] 60 [illegible], [illegible] 37.27%, [illegible] 5 [illegible], 5 [illegible], 5 [illegible],[illegible]ō

# 19.5 [illegible]

## 19.5.1 [illegible]

[illegible], [illegible]; [illegible], [illegible], [illegible]

## 19.5.2 [illegible]

[illegible] 169 [illegible],[illegible], [illegible]

(1)[illegible]

[illegible] 19-5-1[illegible]

[illegible] **19-5-1** [illegible]

| [illegible] | [illegible] | [illegible] | |
|---|---|---|---|
| | | [illegible] | [illegible] (%) |
| [illegible] | [illegible] | 7 | 87.50 |
| | [illegible] | 1 | 12.50 |
| [illegible] | [illegible] | 8 | 100.00 |
| | [illegible] | 0 | 0.00 |
| | [illegible] | 0 | 0.00 |
| [illegible] | [illegible] | 8 | 100.00 |
| | [illegible] | 0 | 0.00 |
| | [illegible] | 0 | 0.00 |
| [illegible] | [illegible] | 7 | 87.50 |
| | [illegible] | 1 | 12.50 |
| | [illegible] | 0 | 0.00 |
| [illegible] | [illegible] | 0 | 0.00 |
| | [illegible] | 5 | 62.50 |
| | [illegible] | 3 | 37.50 |
| | [illegible] | 0 | 0.00 |
| [illegible], [illegible]? | [illegible] | 6 | 75.00 |
| | [illegible] | 2 | 25.00 |
| | [illegible] | 1 | 12.50 |
| | [illegible] | 3 | 37.50 |

| | | | |
|---|---|---|---|
| | [illegible] | 4 | 50.00 |
| | [illegible] | 0 | 0.00 |

[illegible],[illegible]:

① [illegible] 87.50%[illegible],[illegible],[illegible],[illegible];

② [illegible] 100%[illegible];

③ [illegible] 100%[illegible];

④ [illegible] 87.50%[illegible]; 12.50%[illegible];

⑤ [illegible] 62.50%[illegible], 37%[illegible];

⑥ [illegible] 75%[illegible], 25%[illegible], 12.50%[illegible], 37.50%[illegible], 50%[illegible];

⑦ [illegible]:[illegible], [illegible]; [illegible], [illegible]“[illegible]” [illegible], [illegible], [illegible], [illegible]; [illegible], [illegible], [illegible];[illegible];[illegible]

[illegible], [illegible]

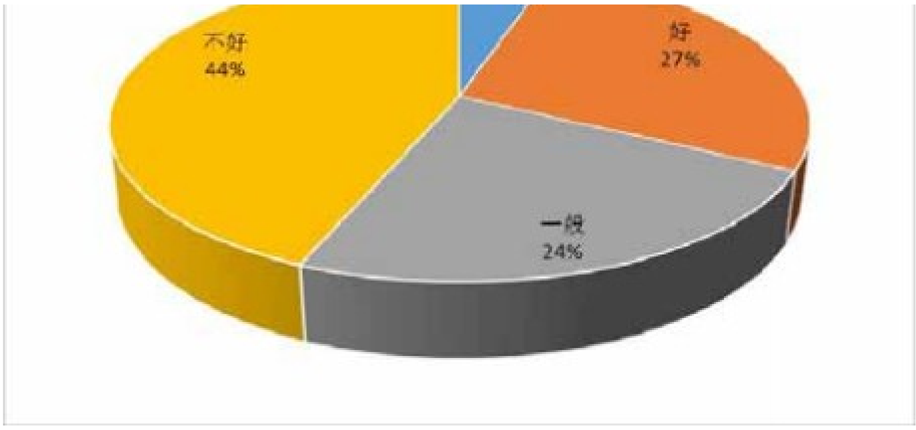
(2)[illegible]

[illegible] 19-5-2[illegible]

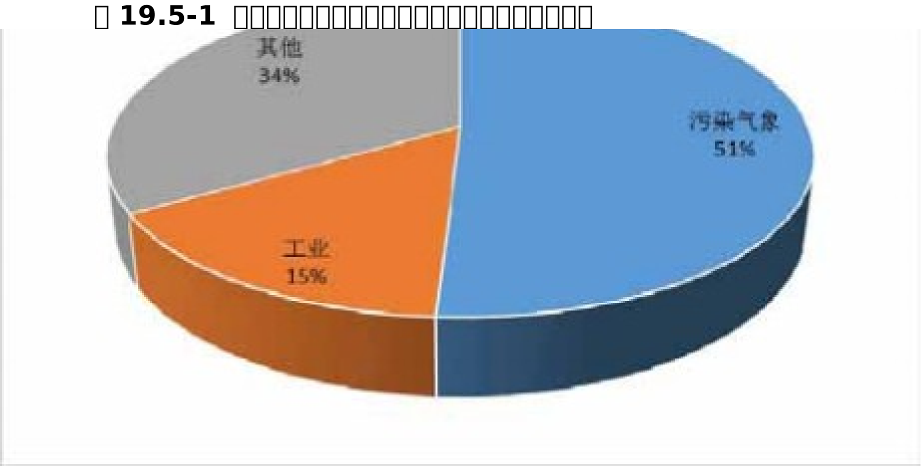
[illegible] **19-5-2** [illegible]

| [illegible] | [illegible] | [illegible] | |
|---|---|---|---|
| | | [illegible] | [illegible] (%) |
| [illegible]([illegible]) | [illegible] | 0 | 0 |
| | [illegible] | 0 | 0 |
| | [illegible] | 161 | 100 |
| [illegible]? | [illegible] | 8 | 5.00 |
| | [illegible] | 44 | 27.5 |
| | [illegible] | 38 | 23.75 |
| | [illegible] | 70 | 43.75 |

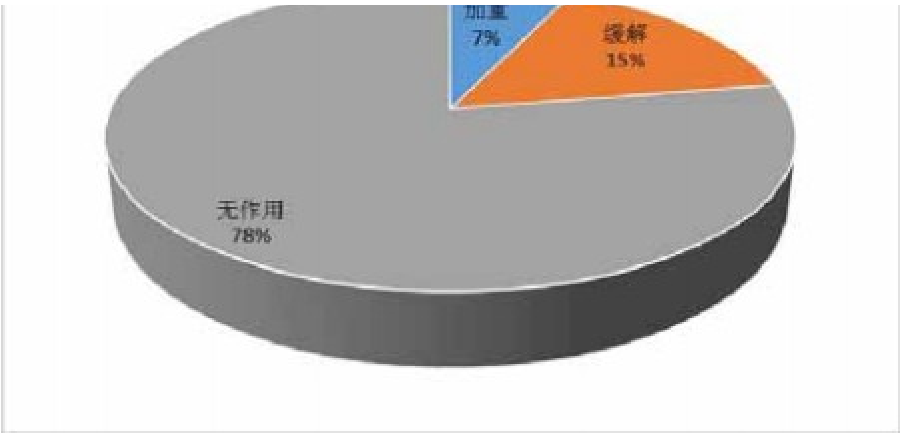
| | | | |
|---|---|---|---|
| [illegible] | [illegible] | 82 | 50.93 |
| | [illegible] | 25 | 15.53 |
| | [illegible] | 54 | 33.54 |
| [illegible]? | [illegible] | 11 | 6.83 |
| | [illegible] | 25 | 15.53 |
| | [illegible] | 125 | 77.64 |
| [illegible]? | [illegible] | 155 | 96.27 |
| | [illegible] | 6 | 3.73 |
| [illegible]? | [illegible] | 158 | 98.14 |
| | [illegible] | 3 | 1.86 |
| | [illegible] | 0 | 0 |
| [illegible]? | [illegible] | 160 | 99.38 |
| | [illegible] | 1 | 0.62 |
| | [illegible] | 0 | 0 |



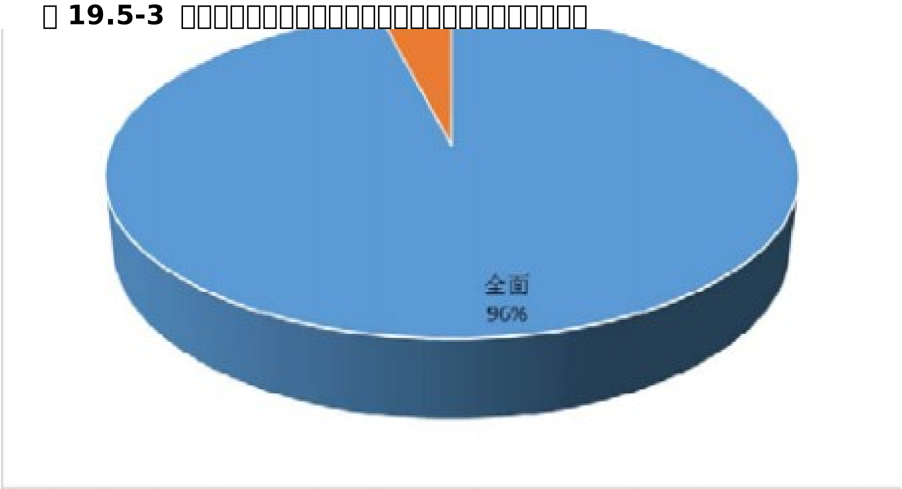
**[illegible] 19.5-1 [illegible]**



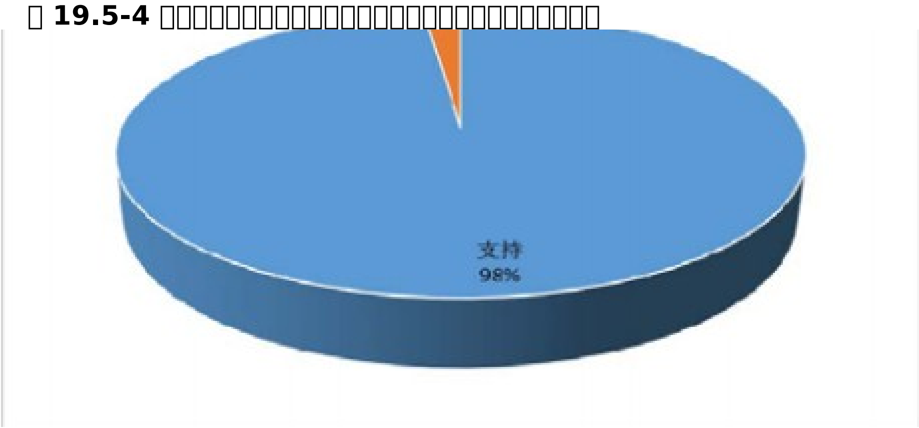
**[illegible] 19.5-2 [illegible]**



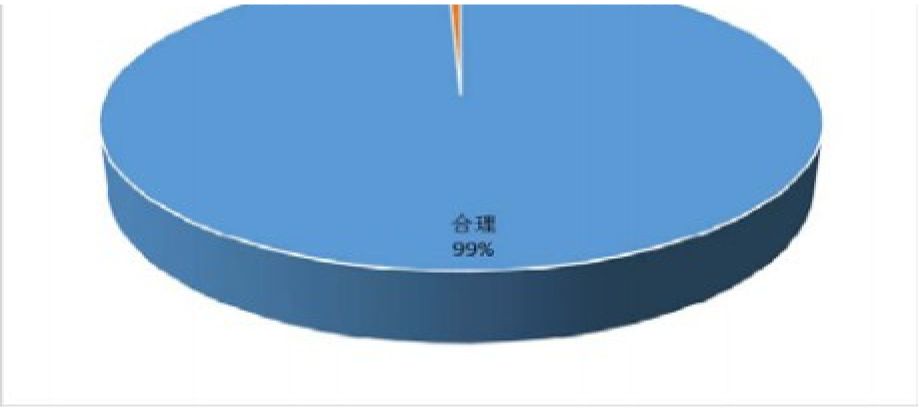
[illegible] 19.5-3 [illegible]



[illegible] 19.5-4 [illegible]



[illegible] 19.5-5 [illegible]



[illegible] 19.5-6 [illegible]

① [illegible]“ [illegible]([illegible])[illegible]?[illegible]? ”[illegible],[illegible],[illegible]“[illegible]” ,[illegible]“ [illegible]” [illegible] 100%[illegible]

② [illegible] 5.00%[illegible], 27.5%[illegible], 23.75%[illegible], 43.75%[illegible], [illegible],[illegible],[illegible]

③ [illegible] 50.93%[illegible], 15.53%[illegible], 33.54%[illegible];

④ [illegible] 6.83%[illegible], 15.53%[illegible], 77.64%[illegible]

⑤ [illegible] 96.27%[illegible], 3.73%[illegible],[illegible];

⑥ [illegible] 98.14%[illegible],[illegible] 1.86%[illegible]

⑦ [illegible] 99.38%[illegible],[illegible] 0.62%[illegible]

[illegible]: 1) [illegible],[illegible],[illegible]; 2)[illegible],[illegible],[illegible]; 3)[illegible],[illegible],[illegible]; 4)[illegible],[illegible]

### 19.5.3 [illegible]

[illegible],[illegible]:

(1) [illegible], [illegible], [illegible], [illegible],[illegible];

(2) [illegible], [illegible], [illegible],[illegible],[illegible];

(3) [illegible], [illegible], [illegible], [illegible], [illegible],[illegible];

(4) [illegible], [illegible], [illegible],[illegible],[illegible];

(5)[illegible],[illegible]

## 19.6 [illegible]

[illegible],[illegible], [illegible], [illegible],[illegible], [illegible], [illegible],[illegible]:

(1)[illegible],[illegible], [illegible], [illegible]

(2)[illegible],[illegible], [illegible], [illegible]“[illegible]”[illegible], [illegible],[illegible]

[illegible],[illegible]

# 20.[illegible]

## 20.1 [illegible]

[illegible],[illegible],[illegible] 190°[illegible] 40km [illegible] 20km,[illegible],[illegible] 1200.0 [illegible]/[illegible], [illegible], [illegible] 85.37 [illegible],[illegible] 22.5578 [illegible],[illegible] 90.4 [illegible] 511213.44 [illegible],[illegible]

[illegible] 41 [illegible],[illegible] 31 [illegible],[illegible] 2×660MW [illegible]([illegible] 4×660MW)[illegible]

[illegible], [illegible], [illegible] 7 [illegible], [illegible], [illegible], [illegible] 4 [illegible], [illegible],[illegible]3 [illegible]5 [illegible] 6 [illegible], [illegible], 7 [illegible], [illegible] 150mm,[illegible] 13mm[illegible] 13mm [illegible], 150-13mm [illegible], -13mm [illegible], 3-0.25mm [illegible]; -0.25mm [illegible]

[illegible], [illegible], [illegible]: [illegible], [illegible] +543.6m~+548m [illegible],[illegible] 2%[illegible],[illegible]

[illegible], [illegible], [illegible], [illegible] 1729 [illegible], [illegible] 1529 [illegible], [illegible] 160 [illegible], [illegible] 1225 [illegible],[illegible] 70 [illegible],[illegible] 72 [illegible],[illegible] 35 [illegible],[illegible] 36 [illegible]: [illegible] 330d, [illegible]“ [illegible]” , [illegible], [illegible]“[illegible]” , [illegible], [illegible]: [illegible] 330d, [illegible] 16h, [illegible] 5280h, [illegible]

[illegible] 511213.44 [illegible], [illegible] 426.01 [illegible]: [illegible] 338022.22 [illegible], [illegible] 66. 1%, [illegible] 52643.29 [illegible], [illegible] 10.3%, [illegible] 115791.58 [illegible], [illegible] 22.7%[illegible]

## 20.2 [illegible]

### 20.2.1 [illegible]

#### 20.2.1.1 [illegible]

[illegible], [illegible]——[illegible], [illegible]——[illegible], [illegible]——[illegible], [illegible], [illegible], [illegible]

#### 20.2.1.2 [illegible]

1.[illegible]

(1)[illegible], [illegible], [illegible]

(2)[illegible], [illegible], [illegible]

(3)[illegible], [illegible], [illegible]

[illegible],[illegible],[illegible],[illegible], [illegible], [illegible],[illegible]

2.[illegible]

(1)[illegible]

①[illegible], [illegible], [illegible]([illegible]) [illegible], [illegible],[illegible]

②[illegible], [illegible], [illegible],[illegible],[illegible]

③[illegible], [illegible], [illegible], [illegible]

(2)[illegible]

①[illegible], [illegible], [illegible], [illegible]

②[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

(3)[illegible]

①[illegible]=,[illegible]=[illegible],[illegible]

②[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

[illegible],[illegible],[illegible]

[illegible], [illegible], [illegible],[illegible]([illegible]) [illegible], [illegible], [illegible], [illegible],[illegible],[illegible]:[illegible]; [illegible], [illegible], [illegible], [illegible]

## 20.2.2 [illegible]

### 20.2.2.1 [illegible]

[illegible], [illegible],[illegible],[illegible] III [illegible]

[illegible], [illegible]: ① [illegible], [illegible] 9596.41—12188.8mg/L, [illegible] ZDT-ZK2( [illegible] )[illegible] 12188.8mg/L,[illegible] 12.19 [illegible];[illegible] 894—1660.56mg/L,[illegible] ZDT-ZK2( [illegible] )[illegible] 1660.56mg/L ,[illegible] 6.64 [illegible]; [illegible] 4693.89—6226.28mg/L, [illegible] ZDT-ZK2( [illegible] ) [illegible] 6226.28mg/L,[illegible] 24.91 [illegible]; [illegible] 3.42—14.7mg/L,[illegible] SY-4([illegible])[illegible] 14.7mg/L,[illegible] 4.9 [illegible]; [illegible] 0.052—1. 11mg/L,[illegible] SY-3([illegible])[illegible] 1. 11mg/L ,[illegible] 55.5 [illegible];[illegible]②[illegible], [illegible], [illegible], [illegible], [illegible],[illegible],[illegible]

## 20.2.2.2 [illegible]

1.[illegible]

[illegible],[illegible], [illegible],[illegible],[illegible]

2.[illegible]

(1)[illegible],[illegible]

(2)[illegible],[illegible]; [illegible], [illegible], [illegible] 33m, [illegible], [illegible], [illegible], [illegible], [illegible]

(3)[illegible],[illegible],[illegible], [illegible]

3.[illegible]

[illegible],[illegible]“[illegible]”[illegible],[illegible], [illegible]

[illegible], [illegible], [illegible] 6.0m [illegible] $1.0\times10^{-7}$cm/s [illegible], [illegible] 1.5m [illegible] $1.0\times10^{-7}$cm/s [illegible]

## 20.2.3 □□

### 20.2.3.1 □□□□□□□□□

□□□□□□□□□□□□□□□□□□□□□□□ (GB/T3838-2002)□□Ⅲ□□□, □□□□□(□□□□□□) □□□□□□, □□□□□□□□□□□□□, □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□,□□□□□□□□□□□□□□□□□□□

### 20.2.3.2 □□□□□□□□□

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□□□□□□□□□□□□□□□□□□□□□□, □□□□□□□□□□□□□□□□□□□□□□□□□□, □□□□“□□□□□”□□, □□□□□□□

### 20.2.3.3 □□□□□□□

□□□□□□□□□ 103.25m$^3$/h, □□□□ 2478m$^3$/d, □□□□□□□□□□□□□□□: Q=400m$^3$/h=9600 m$^3$ /d,□□“ □□+□□□□+□□”□□□□, □□□□□□□□, □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□(GB50383-2006) □□□□□□□□□□□□□□□, □□□□□□□□□□□□□□□□□ (GB/T 18920__2002) □□□□, □□□□□□□

[illegible], [illegible],[illegible]

[illegible] 514. 12m$^3$/d,[illegible], [illegible] 1 [illegible], [illegible] 35m$^3$/d, [illegible], [illegible] (MBR [illegible]) [illegible], [illegible] (GB/T 18920__2002) [illegible],[illegible], [illegible], [illegible],[illegible]

[illegible],[illegible],[illegible]

## 20.2.4 [illegible]

### 20.2.4.1 [illegible]

[illegible] (GB3095-2012)[illegible] TSP[illegible]PM$_{10}$ [illegible] PM$_{2.5}$ [illegible], [illegible]

### 20.2.4.2 [illegible]

[illegible],[illegible], [illegible], [illegible] (GB3095-2012)[illegible],[illegible], [illegible], [illegible],[illegible]

### 20.2.4.3 [illegible]

(1)[illegible]

[illegible], [illegible] 98%, [illegible], [illegible]

[illegible] 80mg/m$^3$ ,[illegible] (GB20426-2006)[illegible], [illegible], [illegible], [illegible], [illegible], [illegible] 10mg/m$^3$ [illegible],[illegible]

(2)[illegible]

[illegible], [illegible], [illegible]

(3) [illegible]

[illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible],[illegible] 58m,[illegible] 6 [illegible] t,[illegible]

(4)[illegible]

[illegible],[illegible]

## 20.2.5 [illegible]

### 20.2.5.1 [illegible]

[illegible], [illegible], [illegible], [illegible], [illegible] (GB3096-2008) 2 [illegible]

### 20.2.5.2 [illegible]

[illegible], [illegible], [illegible],[illegible]

## 20.2.5.3 [illegible]

[illegible], [illegible](GB12348__2008)[illegible] 2 [illegible]

(1)[illegible]

[illegible], [illegible] 75dB (A)[illegible]

(2)[illegible]

[illegible], [illegible], [illegible],[illegible] 75dB (A)[illegible]

(3)[illegible]

① [illegible]

[illegible], [illegible] 1~1.5 [illegible]; [illegible] 10~20mm,[illegible]; [illegible], [illegible]([illegible]) [illegible], [illegible], [illegible]([illegible])[illegible], [illegible]; [illegible],[illegible] 10mm[illegible]

② [illegible]

[illegible], [illegible]; [illegible], [illegible], [illegible]; [illegible]; [illegible], [illegible]; [illegible], [illegible],[illegible],[illegible]

③ [illegible],[illegible], [illegible]; [illegible]; [illegible]; [illegible]; [illegible], [illegible], [illegible],[illegible]

(4)[illegible]

[illegible], [illegible], [illegible], [illegible]: [illegible], [illegible], [illegible],[illegible]

(5)[illegible]

[illegible], [illegible], [illegible], [illegible], [illegible] 20dB(A), [illegible],[illegible],[illegible]

(6)[illegible]

[illegible], [illegible], [illegible], [illegible] 80dB (A)[illegible], [illegible],[illegible] 15 ~ 20dB(A)[illegible]

## 20.2.6 [illegible]

[illegible], [illegible],[illegible],[illegible]

[illegible], [illegible]:[illegible] 3-5m,[illegible] 0.3-0.5m [illegible],[illegible], [illegible]([illegible])[illegible], [illegible] 0.3m [illegible], [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]; [illegible]; [illegible], [illegible]; 300m [illegible],[illegible]

[illegible],[illegible]

[illegible], [illegible],[illegible],[illegible]

## 20.2.7 [illegible]

(1) [illegible]

[illegible] 511213.44 [illegible], [illegible] 20614.93 [illegible], [illegible] 4.03%[illegible]

(2) [illegible]

[illegible] 774.6 [illegible]/[illegible],[illegible] 0.64 [illegible],[illegible] 60 [illegible],[illegible] 1.07%[illegible]

## 20.2.8 [illegible]

[illegible], [illegible], [illegible], [illegible],[illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

[illegible], [illegible], [illegible], [illegible],[illegible]

## 20.2.9 [illegible]

(1)[illegible] 12.00Mt/a,[illegible]“[illegible]”[illegible]“[illegible],[illegible]”[illegible]

(2)[illegible] ($S_{t.d}$)[illegible] 0.23~0.94%,[illegible] 0.44%;[illegible] 6 [illegible] 7 [illegible] 10 [illegible] 12 [illegible] 13 [illegible] 14 [illegible] 15 [illegible] 16 [illegible] 18 [illegible] 20 [illegible] 22 [illegible] 25 [illegible] 26 [illegible] 28 [illegible] 29 [illegible]; 5 [illegible] 19 [illegible]; 3 [illegible] 4.87~49.21%[illegible], [illegible] 12.42~26.35%,[illegible] 17.77%,[illegible] 13 [illegible] 14 [illegible] 15 [illegible] 16 [illegible] 19 [illegible] 22 [illegible] 26 [illegible],[illegible] 41 [illegible],[illegible], [illegible], [illegible][ 1988]5 [illegible]“[illegible] 3%[illegible]” [illegible]

(3)[illegible],[illegible],[illegible], [illegible], [illegible],[illegible]

(4)[illegible] 95%, [illegible] 100%; [illegible], [illegible], [illegible]; [illegible] 95%[illegible]([illegible][2010] 146 [illegible])[illegible],[illegible],[illegible]

(5) [illegible] (2011 [illegible] (2013 [illegible])), 120 [illegible] t/a [illegible], [illegible] 12.00Mt/a,[illegible],[illegible]

(6)[illegible]“[illegible]”[illegible], [illegible], [illegible]

(7)[illegible],[illegible], [illegible], [illegible],[illegible],[illegible]

# 20.3 [illegible]

## 20.3.1 [illegible]

[illegible], [illegible]:

[illegible], [illegible] [illegible] [illegible], [illegible] [illegible] [illegible], [illegible], [illegible], [illegible], [illegible]

## 20.3.2 [illegible]

(1) [illegible], [illegible], [illegible]

(2) [illegible], [illegible], [illegible], [illegible], [illegible], [illegible]

[illegible]1

# [illegible]

[illegible]:

[illegible]，[illegible]“[illegible]”[illegible]，[illegible]，[illegible]，[illegible]

[illegible]

2010 [illegible] 12 [illegible] 10 [illegible]

[illegible]　　[illegible]

[illegible]国投哈密能源开[illegible]有限责任公司

# 供用热意向协议

供热方：国投哈密发电有限公司

用热方：国投哈密能源开发有限责任公司

供、用热双方作为国投哈密大南湖煤-电一体化项目的两个主要子项目方，本着平等自愿、协商一致的原则，就国投大南湖电厂项目向国投哈密大南湖七号煤矿项目供应热力的相关事宜达成如下协议：

一、由电厂方向煤矿方提供其全年所需的热力；

二、热力交换站及管线走向由双方会同相关设计单位共同协商确定；

三、双方日常维护的责任分界点为热力交换站；

四、用热价格由双方协商确定，并在正式合同中注明；

五、本协议自签订之日起生效，有效期至供用热合同生效之日止；

六、本协议一式陆份。供用热双方各执叁份。

供热方：（盖章）

法定代表（委托代理人）

用热方：（盖章）

法定代表（委托代理人）

签订日期：　　年　月　日

□□3

دۆلەت مەبلەغ سالغان قۇمۇل ئېنېرگىيە تەرەققىيات چەكلىك مەسئۇلىيەت شىركىتى

**国投哈密能源开发有限责任公司**

# 更名通知

国投哈密能源开发有限责任公司负责建设大南湖矿区西区大南湖七号煤矿项目，该项目于2014年1月21取得国家能源局“国家能源局关于同意新疆哈密大南湖矿区西区大南湖七号煤矿开展前期工作的复函”(国能煤炭[2014]45号)后，正式变更项目名称为国投哈密能源开发有限责任公司大南湖矿区西区大南湖七号煤矿，原项目名称“国家开发投资公司哈密能源开发有限责任公司哈密一矿”不再使用，特此声明。井田范围坐标见下表:

| | 点名 | 54北京X坐标 | 54北京Y坐标 | 80西安纬度 | 80西安经度 | 80西安X坐标 | 80西安Y坐标 |
|---|---|---|---|---|---|---|---|
| 井田范围坐标 | 1 | 4695500.000 | 16526235.700 | 42.2337838 | 93.1902359 | 4695434.879 | 16526127.657 |
| | 2 | 4695500.000 | 16530000.000 | 42.2337349 | 93.2146942 | 4695434.870 | 16529892.008 |
| | 3 | 4692453.000 | 16533483.000 | 42.2158090 | 93.2418589 | 4692387.820 | 16533375.048 |
| | 4 | 4691286.500 | 16537191.700 | 42.2119680 | 93.2700398 | 4691221.296 | 16537083.796 |
| | 5 | 4686875.000 | 16537254.000 | 42.1856701 | 93.2702095 | 4686809.791 | 16537145.996 |
| | 6 | 4685119.000 | 16526275.000 | 42.1801398 | 93.1902388 | 4685053.824 | 16526167.036 |

开采深度：由+550米标高至-450米标高

矿区面积：85.37平方公里

国投哈密能源开发有限责任公司

2014年2月5日